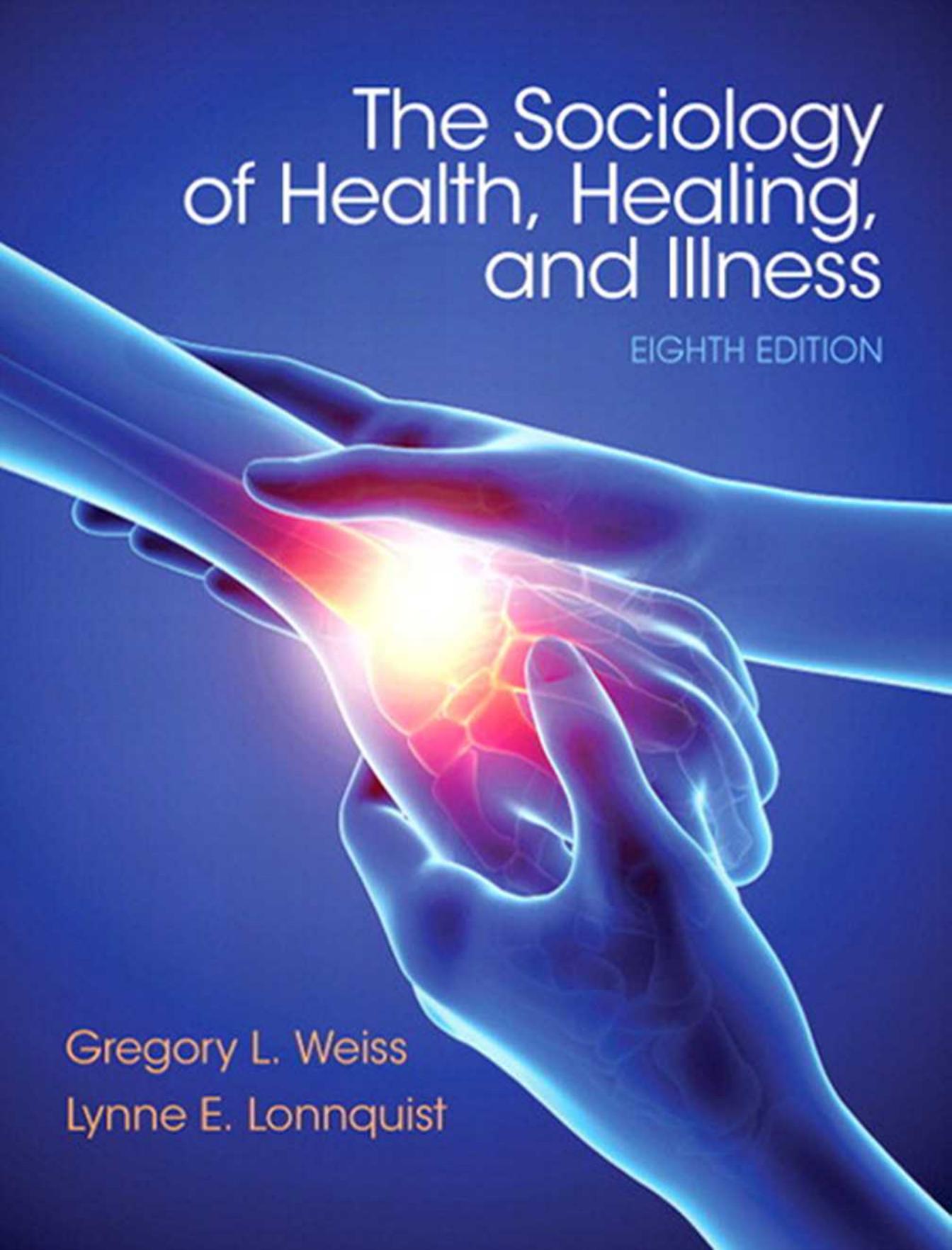


# The Sociology of Health, Healing, and Illness

EIGHTH EDITION



Gregory L. Weiss  
Lynne E. Lonquist

EIGHTH EDITION

# *THE SOCIOLOGY OF HEALTH, HEALING, AND ILLNESS*

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**PEARSON**

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# Preface

The eighth edition of this textbook has been updated to reflect the very important changes that have occurred in the U.S. health care system in the last three years and in matters related to the sociology of health, healing, and illness. It reflects medical sociology's commitment to analyzing patterns of disease and illness, health- and illness-related behaviors, the health care professions, and the health care system.

In preparing this eighth edition we have sought to retain and strengthen the emphases and features of the earlier editions; to thoroughly update patterns, trends, and statistics; and to present new material that reflects important changes in health care in society and important advancements in medical sociology.

## KEY EMPHASES WITHIN THE TEXT

This edition of the text maintains the same five emphases as the earlier editions. First, we provide broad coverage of the traditional subject matter of medical sociology and include both new perspectives and new research findings on this material. The core areas of medical sociology (the influence of the social environment on health and illness, health and illness behavior, health care practitioners and their relationships to patients, and the health care system) all receive significant attention within the text. Naturally, statistics throughout the text have been updated to provide timely analysis of patterns and trends. Recent research findings and thought have been incorporated in every chapter. Attention devoted to relatively new areas in the field has not reduced coverage of traditional areas such as social stress, illness behavior, and the physician–patient relationship.

Second, we have continued to emphasize emerging areas of analysis in medical sociology and recent work within the field. Recent health

care reform efforts in both the public and private domains continue to have dramatic effects on almost every aspect of health care. We describe these effects throughout the text.

We also continue to incorporate key medical ethics issues throughout the text. These issues represent some of the most important health-related debates occurring in the United States today, and many medical sociologists have acknowledged the importance of understanding these policy debates and setting them within a sociological context. We have attempted to provide balanced and comprehensive coverage of several of these issues (especially in Chapters 13 and 16 and in the discussion questions and cases at the end of chapters).

## NEW TO THIS EDITION

This eighth edition also provides extended analysis of a wide range of topics including the following:

- The early experience with the implementation of The Patient Protection and Affordable Care Act
- The importance of social relationships in preventing disease and illness and in responding to them
- Increased coverage of disease and illness in developing countries
- Additional coverage of Healthy People 2020
- The continuing controversy about the HPV vaccine
- The effects of neighborhood on mental health
- The relationship between sexual orientation and stress
- The issue of distracted driving as it relates to public health
- Additional coverage in developments related to palliative care

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- Introduction of key new concepts such as cultural health capital, pharmaceuticalization, and e-health
- Additional coverage of the relationship between medical providers and medical industries
- Modification of the Medical College Admissions Test (MCAT)
- New information on unionization of nurses and the nursing shortage
- Analysis of the movement toward patient-centered care and the importance of health literacy and patient activation
- The constitutional challenge to The Affordable Care Act
- An early look at the increased attention to the hospital readmission of Medicare patients
- A new section on nursing homes
- A brief look at health applications as part of the changing technology in medicine
- The globalization of health care
- Significant recent developments in the health care systems of Canada, China, and Great Britain and increased attention to European models for health insurance

Third, the extensive coverage of gender, race, and class issues as they relate to health, healing, and illness has been maintained. Throughout the textbook, we examine issues in light of race, class, and gender. We want students to constantly be exposed to the important influence of these factors on matters related to health and illness. The chapters on social epidemiology, social stress, health and illness behaviors, the profession of medicine and medical education, and the physician–patient relationship all give special emphasis to these matters.

Fourth, we continue to emphasize key social policy questions. Timely questions and issues addressed include regular, routine HIV checks (Chapter 4); the provision of clean needles to people using injectable drugs (Chapter 6); mandating HPV vaccinations (Chapter 6); public financing of medical education (Chapter 9); the reconfiguration of traditional responsibilities of hospital nurses (Chapter 10); use of strikes by medical providers (Chapter 10); reli-

gious exemption laws (Chapter 11); the legal status of medical marijuana (Chapter 11); The Affordable Care Act (Chapter 14); the effects of consolidation and merger among American hospitals and the pressures placed on the viability of public hospitals (Chapter 15); and the use and possible abuse of advanced health care technologies (Chapter 16).

Fifth, we have attempted to prepare a text that is informative, readable, and interesting. We want readers to become aware of many of the understandings of health, healing, and illness that we have because of medical sociology and to become intrigued by the provocative issues and debates that exist in medical sociology and in the health care field. We also want readers to find this book readable and interesting.

Both of us have enjoyed structuring our classrooms to enable as much reflection and critical thinking and student participation as possible. We have found that there is simply no time for some of the classroom activities that we most enjoy (e.g., reading and then discussing a provocative paperback, watching a good documentary and critically analyzing it together, or using student panels to introduce issues) if we feel obligated to lecture on all the material in each chapter. On the other hand, we do want students to become familiar with the important contributions of the field. When we use this book, we do spend some time lecturing on parts of it, adding to certain discussions and presenting some of the material in an alternative manner. But, our students are able to grasp much of the book on their own, enabling us to supplement and create additional types of learning experiences.

What are the key pedagogical features of this text?

- Clear organization within chapters and a clear writing style
- Interesting boxed inserts (“In the Field”) that provide illustrations of key points made in the chapters
- Interesting boxed inserts (“In Comparative Focus”) that examine a selected health topic or issue in another country or countries

- Meaningful tables and charts with the most recent data available at the time the book was written
- Illustrative photographs, most of which were taken specifically for use in this book
- Chapter summaries
- End-of-chapter “Health on the Internet” references and questions
- End-of-chapter “Key Concepts and Terms” sections
- End-of-chapter “Discussion Cases”
- References conveniently provided at the end of each chapter

Three additional facets of the book are important to us and help to describe its place within the field. First, we consider one of the strengths of the book to be the large number of research studies cited to illustrate key points. We do this to constantly demonstrate to students the empirical basis of sociology, the origin of sociological knowledge, and the fascinating types of research conducted in medical sociology. We hope it inspires students to consider interesting research projects.

We have worked hard to identify theoretically meaningful and methodologically sound studies that contribute important knowledge to our understanding of health, healing, and illness. While making heavy use of research conducted by medical sociologists, we also include appropriate material from the other social sciences, from the government, and from the medical professional literature. We believe that this is helpful in forming the most comprehensive understanding of the topics covered in the book.

The second facet of our book that is important to us is that we provide balanced coverage on key issues. That does not mean that our book lacks critical perspective or analysis. In fact, readers will find no shortage of critical questions being asked. But, our objective is to expose students to arguments on both sides of issues and to challenge them to consider the soundness of reasoning and quality of evidence that are offered.

Finally, we hope that this text reflects a genuine understanding of some very important

and complex issues. Both of us have had many opportunities to experience various dimensions of the health care system. Between the two of us, we have been able to apply and extend our medical sociological training through work in a free health clinic, a family planning clinic, in family counseling, in hospital bioethics groups, on the human rights committee of a state psychiatric hospital, on the Navajo reservation, and in voluntary health agencies. While we have not substituted our personal experiences for more general understandings developed through sound theory and research, we believe that our experiences have helped us to develop a better understanding of certain issues and assisted us in being able to illustrate important concepts and patterns.

Ultimately, our hopes for student-readers remain the same as with the earlier editions—that they gain an appreciation for how the sociological perspective and social theory contribute to an understanding of health, healing, and illness and for the manner in which social research is used to study these processes. In addition, we hope that readers perceive some of the many wonderfully exciting issues that are studied by medical sociologists.

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Gregory L. Weiss  
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# CHAPTER I

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## *A Brief Introduction to the Sociology of Health, Healing, and Illness*

### Learning Objectives

- Identify and explain the major historical factors that led to the development of medical sociology as a subfield of sociology.
- Identify and give specific examples of the four major categories of focus within medical sociology.
- Explain how the sociological perspective, sociological theory, and social research methods can be applied to the study of health, healing, and illness.
- Discuss the orientation of medical sociologists to their research in this early part of the twenty-first century.

Through much of the first half of the twentieth century, matters pertaining to health, healing, and illness were viewed as being primarily within the domain of physicians, other health care practitioners, and scholars in the chemical and biological sciences. Neither medicine nor sociology paid much attention to each other. This has changed dramatically in the ensuing years as the paths of sociology and medicine have increasingly converged. This chapter presents a brief introduction to the sociology of health, healing, and illness—a subfield of sociology commonly referred to as medical sociology.

### DEFINITION OF MEDICAL SOCIOLOGY

Ruderman (1981:927) defines **medical sociology** as “the study of health care as it is institutionalized in a society, and of health, or illness, and its relationship to social factors.” The Committee on Certification in Medical Sociology (1986)

of the American Sociological Association (ASA) provided the following elaboration:

Medical sociology is the subfield which applies the perspectives, conceptualizations, theories, and methodologies of sociology to phenomena having to do with human health and disease. As a specialization, medical sociology encompasses a body of knowledge which places health and disease in a social, cultural, and behavioral context. Included within its subject matter are descriptions and explanations or theories relating to the distribution of diseases among various population groups; the behaviors or actions taken by individuals to maintain, enhance, or restore health or cope with illness, disease, or disability; people’s attitudes, and beliefs about health, disease, disability and medical care providers and organizations; medical occupations or professions and the organization, financing, and delivery of medical care services; medicine as a social institution and its relationship to other social institutions; cultural values and societal responses with respect to health, illness, and disability; and the role of social factors in the etiology of disease, especially functional and emotion-related.

## 2 Chapter One

Clearly, the focus of medical sociology is broader than just “medicine.” In fact, the title of this book was intentionally selected to connote that medical sociology includes a focus on health (in the positive sense of social, psychological, and emotional wellness), healing (the personal and institutional responses to perceived disease and illness), and illness (as an interference with health).

Sociologists study health, healing, and illness because they are a central part of the human experience, because they help us to understand how society works, and because they reflect patterns of social relationships. Sociologists emphasize that explanations for health and illness and for healing practices must go beyond biological and individualistic factors by examining the important influence of social context.

### HISTORICAL DEVELOPMENT OF MEDICAL SOCIOLOGY

#### Setting the Foundation: The Importance of Social Factors on Health and Illness

It is difficult to identify any specific event as the “starting point” of the field of medical sociology. Certainly, some of the basic insights of the field were present among society’s earliest philosophers and physicians. Many physicians in ancient times (see Chapter 2) perceived an essential interrelationship among social and economic conditions, lifestyle, and health and illness. This understanding has been an integral part of medical thinking in some (though not all) civilizations since then. Often cited as a key historical figure who paved the way for medical sociology is Rudolf Virchow, the great mid-nineteenth-century physician (and the founder of modern pathology). Virchow identified social and economic conditions as being primary causes of an epidemic of typhus fever in 1847 and lobbied for improved living conditions for the poor as a primary preventive technique. Arguing against biomedical reductionism—attempting to reduce every disease and illness to a biological cause—Virchow contended that

medicine is largely a social science that needs to consider the influence of social structure on creating both health and illness.

#### The Turn of the Century: Development of Social Medicine

The last decades of the nineteenth century and the first decades of the twentieth century were a period of heightened awareness in both the United States and Europe of the need for social programs to respond to health crises. These were years of social upheaval caused in part by the effects of the Industrial Revolution and rapid urban growth (and, in the United States, a tremendous influx of largely poor and unskilled immigrants). In 1915, Alfred Grotjahn published a classic work, *Soziale Pathologie*, documenting the role of social factors in disease and illness and urging the development of a social science framework for working with communities and providers in reducing health problems. The term **social medicine** was coined to refer to efforts to improve public health.

However, an important crosscurrent was occurring simultaneously. The discovery of the germ theory of disease enabled physicians to more successfully treat the acute infectious diseases that plagued society. This reinforced a belief that medicine could rely solely on biological science. The discipline of sociology was still in its infancy and was not able to provide sufficient documentation of the need for a complementary focus on social conditions.

#### The Early- to Mid-Twentieth Century: More Studies on Health and Medicine

Several important precursors to the development of medical sociology occurred in the first half of the twentieth century. Social surveys became an important research technique, and many focused on health and living conditions. Sociologists often worked with charity organizations and settlement houses, which also became subjects for study. By the 1930s and 1940s, many sociological studies of the medical field, including Talcott Parsons’ 1939 work on the medical

professions, appeared. Political scientist Oliver Garceau (1941) contributed to the political sociology of medicine by analyzing the political life of the American Medical Association. George Rosen (1944) studied increasing specialization in medicine. Oswald Hall (1946) studied the informal organization of medical practice in an American city (Rosen, 1976).

### The 1950s and 1960s: The Formal Subdiscipline Emerges

The emergence of medical sociology as a field of study occurred in the 1950s and 1960s. The most important developments then pertain to changes in health, healing, and illness; external recognition of the field; and its institutionalization within sociology.

#### Changes in Health, Healing, and Illness.

Based on analysis by Rodney Coe (1970) and others, the development of medical sociology was facilitated by four changes that had occurred or were occurring in medicine in the 1950s and 1960s. These are as follows:

1. ***Changing patterns of morbidity and mortality.*** During this time, the primary causes of sickness and death shifted from acute infectious diseases (e.g., influenza and tuberculosis) to chronic, degenerative diseases (e.g., heart disease and cancer). Because the factors that lead to degenerative diseases are more obviously interwoven with social patterns and lifestyle, the necessity for sociological contributions became more apparent.
2. ***The impact of preventive medicine and public health.*** In the 1800s and early 1900s, the field of public health focused primarily on bacteriology (linking particular germs to diseases) and immunology (preventing disease occurrence). As the twentieth century progressed, however, it became apparent that protection of public health also required consideration of social factors such as poverty, malnutrition, and congested living areas—all of obvious interest to sociologists.
3. ***The impact of modern psychiatry.*** The development of the field of psychiatry led to increased interest in the psychophysiological basis for many diseases and illnesses, in the importance of effective interaction between patients and practitioners, and in the use of patients' social environment as part of therapy.
4. ***The impact of administrative medicine.*** Throughout the twentieth century, the organizational complexity of the medical field—in the settings in which care is delivered, in the ownership of medical facilities, and in the bureaucracies that were created to regulate and finance medical care—expanded enormously. The abilities of sociologists to analyze organizations and structures, identify those who are harmed as well as those who gain by various arrangements, and examine the consequences of alternative techniques were increasingly useful skills in organizationally complex environments.

#### External Recognition and Legitimation.

Two key events during the 1950s and 1960s contributed to the increased interest in and legitimation of medical sociology. First, medical schools began to hire sociologists for their faculties. Although medical sociology was not always well integrated into the curriculum, the move symbolized an increasing recognition of sociology's potential contribution to understanding disease and illness. Second, government agencies and private foundations initiated significant financial funding for medical sociology. The National Institutes of Health and the National Institutes of Mental Health sponsored sociological research in medicine and subsidized training programs for graduate students in sociology. (Both authors of this book received fellowships from the U.S. Public Health Service for their graduate education.) The Russell Sage Foundation provided significant funding of programs to increase the use of social science research within medicine.

#### Institutionalization of Medical Sociology.

Finally, two additional events are especially noteworthy in the institutionalization of medical

## 4 Chapter One

sociology. In 1959, medical sociology was accepted as a formal section of the ASA—an important step in bringing recognition to a field and enabling recruitment of new members. Second, in 1965, the ASA assumed control of an existing journal in medical sociology and renamed it the *Journal of Health and Social Behavior*. Now the official ASA journal for medical sociology, it is a key mechanism for medical sociologists to share their research findings.

Since then the field has flourished. The ASA section on medical sociology currently has approximately 1,000 members (there are about 15,000 ASA members) and is the second largest special interest section within the association. Medical sociologists publish in a wide variety of journals in sociology, public health, and medicine, and are increasingly employed in health planning, community health education, education of health professionals, and health care administration in addition to colleges and universities. See “In the Field” insert on Major Topics in Medical Sociology for one way of organizing the major topics within medical sociology.

### Foundational and Emerging Areas of Interest

All fields of inquiry are built on certain foundational topics yet remain open to new and emerging areas of interest. The “In the Field” insert on Major Topics in Medical Sociology identifies the foundational topics within this field. Two topics in which interest is rapidly expanding (issues related to medical ethics and to managed care and health care reform) are described below.

**Issues Related to Medical Ethics.** Technological advancements in medicine in the last few decades have raised important and provocative ethical questions. Sociological analysis and insights are extremely important in genuinely understanding these matters (DeVries et al., 2007). In recent years, medical sociologists have become more active in studying (1) values, attitudes, and behaviors of people relative to ethical issues in medicine (e.g., attitudes about

genetic research and human cloning) and how they are influenced by various social factors; (2) social policy questions (e.g., on new reproductive technologies or the termination of treatment for the terminally ill); and (3) social movements (e.g., the pro-life and pro-choice movements) that have developed around interest in ethical issues in medicine. DeVries and Subedi (1998:xiii) describe sociology’s role as “lifting bioethics out of its clinical setting, examining the way it defines and solves ethical problems, the modes of reasoning it employs, and its influence on medical practice.”

**Issues Related to Managed Care and Health Care Reform.** Concerns about the high costs of health care and the lack of access that millions of Americans have to quality health care have led to health care reform efforts in the United States. A massive shift from traditional health insurance plans to managed care networks, such as health maintenance organizations, occurred throughout the 1990s and early 2000s, and major health care reform legislation (the Affordable Care Act) was passed in 2010. Hankin and Wright (2010:S10) in an editorial entitled “Reflections on Fifty Years of Medical Sociology” in the *Journal of Health and Social Behavior* state:

The work for medical sociologists is just beginning as we enter a new era of health care reform. Not only can we offer insights about how to implement reform, but we can also examine the intended and unintended consequences of transforming the health care system and the extent to which these structural changes actually improve population health.

These changes have had tremendous effects on the health care system and are examined throughout this book.

### SOCIOLOGY’S CONTRIBUTION TO UNDERSTANDING HEALTH, HEALING, AND ILLNESS

Sociology is “the scientific study of social life, social change, and the social causes and consequences of human behavior” (American



## IN THE FIELD

### MAJOR TOPICS IN MEDICAL SOCIOLOGY

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The four major categories of interest in medical sociology with specific topics of analysis and sample research questions (that will be answered in the appropriate chapters) are as follows:

#### Category #1: The Relationship Between the Social Environment and Health and Illness

**Social Epidemiology**—the study of patterns and trends in the causes and distribution of disease and illness within a population. Research question: Why is the infant mortality rate higher for African Americans?

**Social Stress**—the study of the imbalance or unease created when demands on a person exceed resources to deal with them. Research question: Why do women report higher levels of stress?

#### Category #2: Health and Illness Behavior

**Health Behavior**—the study of behaviors intended to promote positive health. Research question: Why does society focus on changing individual behaviors rather than the social circumstances that influence individual behaviors?

**Experiencing Illness and Disability**—the study of the ways that people perceive, interpret, and act in response to illness and disability. Research question: What factors cause people to interpret medical symptoms in very different ways?

#### Category #3: Health Care Practitioners and Their Relationship with Patients

**Physicians and the Profession of Medicine**—the study of medicine as a profession and the role of medicine within society. Research question: How does the high number of medical malpractice suits influence physicians and the practice of medicine?

**Medical Education and the Socialization of Physicians**—the study of the education and socialization of physicians in medical schools. Research question: What are the key value orientations that students learn in medical school?

**Nurses, Mid-Level Health Care Practitioners, and Allied Health Workers**—the study of issues pertaining to nonphysician health care providers. Research question: Why are physicians more supportive of physician assistants than they are of nurse practitioners?

**Alternative and Complementary Healing Practices**—the study of healers and healing practices outside conventional medicine. Research question: Why do many people simultaneously use both medical doctors and alternative healers?

**The Physician–Patient Relationship**—the study of patterns in the way that physicians and patients relate to each other and factors that influence these patterns. Research question: To what extent do male and female physicians interact differently with patients?

#### Category #4: The Health Care System

**The Health Care System**—the study of the organization, regulation, financing, and important problems in the health care system and recent health care reform legislation and activity. Research question: What effect will health care reform have on the health care system?

**Health Care Delivery**—the study of the organizations and agencies (including hospitals) that provide health care services. Research question: What are the consequences for society of for-profit versus not-for-profit hospitals?

**The Social Effects of Health Care Technology**—the study of the social consequences and public policy choices of new health care technologies. Research question: What are the supporting and opposing arguments for legalizing physician-assisted death?

**Comparative Health Care Systems**—the study of health care systems in other countries. Research question: Why are most health care systems around the world currently undergoing significant change?

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Sociological Association, 2013:1). It is the discipline with primary responsibility for studying social interactions among people, groups and organizations, and social institutions, and examining how these interactions influence and are influenced by the larger culture and social structure of society.

Three particular aspects of sociology contribute in important ways to understanding health, healing, and illness: (1) the sociological perspective, (2) the construction of social theories to explain why things happen as they do, and (3) the scientific foundation of the discipline.

### The Sociological Perspective

Sociology is one of many perspectives that are used to acquire knowledge about the world. History, biology, chemistry, anthropology, psychology, economics, political science, philosophy and religion, clinical medicine, and other disciplines all contribute to our understanding of the medical field. Sociology's primary focus is to understand social interaction, groups and organizations, and how social context and the social environment influence attitudes, behaviors, and social organization.

The **sociological perspective** requires an ability to think about things in a manner other than that to which many individuals are accustomed. Often, we think very individualistically about human behavior. If a particular teenager begins smoking cigarettes, or a particular man is very reluctant to see a physician when ill, or a particular medical resident feels abused by superiors, we may attempt to understand the behavior by focusing on the particular individual or the particular situation. However, sociology attempts to understand these behaviors by placing them in social context—that is, by looking for social patterns and examining the influence of social forces or circumstances that have an impact on individual behavior.

C. Wright Mills, an enormously influential sociologist, referred to this ability to see how larger social patterns (public issues) influ-



C. Wright Mills (1916–1962) coined the term “sociological imagination” to refer to the ability to see how individuals’ *personal* troubles are influenced by large-scale, social (*public*) issues.

ence individual behavior (personal troubles) as **sociological imagination** (Mills, 1959).

Consider the following:

1. Almost all adult smokers began smoking as a teenager; few adults begin smoking.
2. Men are more reluctant than women to see a physician.
3. Pharmaceutical drugs are more expensive in the United States than in any other country.

How do we understand these very important social patterns that have a significant influence on health and illness in the United States? Sociologists attempt to understand these patterns by placing them in social context. It is not just one adult smoker who started as a teen; that is the common pattern. So, we try to find the social forces and the social arrangements that

make it common for teens but not for adults to initiate smoking.

It is not just one man who is more reluctant than one woman to see a physician. If so, there might be an individual explanation. But, rather, men in general have more reluctance than women in general, so we are talking about some social force that influences men and women differently. What is it about living in the United States that creates this greater physician-aversion for men?

Finally, it is not just one drug that is more expensive in the United States than in other countries. If so, there might be something in particular about that drug. But, almost all drugs are more expensive—many are much, much more expensive—so there must be some larger explanation. This is what Mills meant when he said that sociologists try to identify and explain the “public issues” (the larger social forces) that lead to “personal troubles.”

### The Construction of Social Theories

Sociology is an effort to identify and describe social patterns and then to find cause-and-effect relationships that explain the patterns. In *Invitation to Sociology* (1963), Peter Berger describes sociology as searching for the general in the particular—attempting to determine how particular facts or individual behaviors may generate as well as reflect social patterns. Whether the focus is delinquency, family interaction, or medicine, sociologists attempt to identify patterns in attitudes and behaviors.

All science, natural and social, assumes that there is some underlying order in the universe. Events, whether they involve molecules or human beings, are not haphazard. They follow a pattern that is sufficiently regular for us to be able to make generalizations—statements that apply not just to a specific case but to most cases of the same type . . . Generalizations are crucial to science because they place isolated, seemingly meaningless events in patterns we can understand. It then becomes possible to analyze relationships of cause and effect and thus to explain why something happens and to predict that it will happen

again under the same conditions in the future. (Robertson, 1987:6)

**Major Theoretical Orientations in Sociology That Guide the Effort to Find Explanations.** Three major theoretical orientations have dominated the field of sociology. These orientations are fundamental images of society that guide sociological thinking and the process of searching for explanations.

**Functionalism** (or structural functionalism) views society as a system (a structure) with interdependent parts (e.g., the family, the economy, and medicine) that work together to produce relative stability. Each of these parts is assumed to have positive consequences (or functions) and may have negative consequences (or dysfunctions) for the society as a whole. When each part operates properly, a stable and relatively harmonious society exists.

Given this image of society, functionalists are adept at identifying the effective integration of societal parts. For example, functionalists might identify the manner in which the value that America places on science and discovery has led to significant advancements in medical knowledge and to the development of new forms of medical technology.

**Conflict theory** views society as a system largely dominated by social inequality and social conflict. Societies are viewed as being in a constant state of change, characterized by disagreements over goals and values, competition among groups with unequal amounts of power, and hostility. Conflict theorists perceive whatever societal order exists to be dictated by the most powerful groups, rather than being based on the value consensus envisioned by functionalists.

Given this image of society, conflict theorists are skillful at utilizing a critical perspective about it and at identifying social inequities. In this regard, medical sociologists have an opportunity to comment critically on perceived problems and inequities in the health care system and to offer a critical perspective on the functioning of the system. For example, conflict

theorists point out that a primary reason that many low-income women conceive premature, low-birth-weight babies is their inability to access adequate prenatal care.

While functionalism and conflict theory view society from a macro perspective (examining society as a whole), **interactionism** (or symbolic interactionism) focuses on small-scale, day-to-day interactions among people. Society is viewed as the ultimate outcome of an infinite number of episodes of interaction each day in which individuals interpret social messages and base their responses on these interpretations.

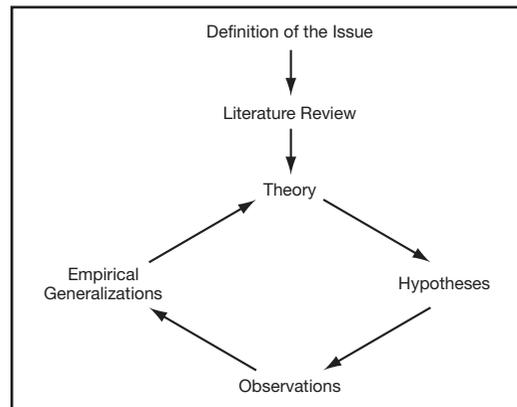
In medicine, interactionists have shown how physicians sometimes use particular communication strategies (e.g., using brief, close-ended questions and interrupting patient comments) to reinforce dominance and bolster role distance.

### The Scientific Foundation of the Discipline

Charon and Vigilant (2008) have stated that sociology rests on both an objective and critical foundation. Sociology is a social science, and through much of its formative years, researchers typically followed the same basic model of science and scientific research as did their colleagues in the natural and physical sciences. These techniques rely on empirical procedures used to obtain quantifiable data designed to test specific hypotheses. Scientists are expected to maintain objectivity in the conduct of their research, that is, to attempt to prevent biases from influencing the conduct of the work or the conclusions drawn.

**The Scientific Process.** A model of the **scientific process** is provided in Figure 1–1. According to this model, once a particular sociological question is identified, the researcher scours the literature (typically books and journals) to learn what research has already been done and determine what is already known about the subject. This work guides the researcher in formulating a *theory*, or general explanation, about why things happen as they do.

**Figure 1–1** The Scientific Process



Source: Adapted from Walter L. Wallace (ed.). *Sociological Theory: An Introduction*, Copyright (1969) by Aldine Publishers. Reprinted by permission of Aldine Transaction, a division of Transaction Publishers.

Based on this theory, the researcher deduces one or more specific *hypotheses* (specific statements predicting what will be found in the research). These hypotheses must be capable of being found to be accurate or inaccurate. Research is then designed to test the accuracy of the hypotheses; a sample of people is selected from the population for study, and data are collected.

Once the data have been collected and analyzed, the researcher seeks to draw empirical generalizations from the research. Conclusions are drawn about the accuracy of the hypotheses and appropriateness of the theory that guided the research. The research may lend additional credence to the theory, suggest the theory needs to be modified, or be so inconsistent with the theory that a major revision is needed. If the results of the research are published or presented, then the study will join others on the subject and be available for the next researcher doing a literature review in the area.

**Data-Collection Techniques.** Some of the most important data-collection techniques used by medical sociologists are briefly described here. Other techniques, such as specific epidemiological techniques, are described where appropriate in the text.

1. **Survey research.** **Survey research** is the most commonly used data-gathering technique in sociology. It involves the systematic collection of information about attitudes and behaviors through personal or telephonic interviews or self-administered questionnaires (increasingly done online). Survey research is particularly helpful in studying attitudes or values—subjects that cannot easily be studied in other ways—and obtaining self-reported data on health and response to illness. Proper sampling techniques must be followed so that the sample is representative of the population of interest.
2. **Experimental research.** **Experimental research**—seeking to identify cause-and-effect relationships between specified variables in carefully controlled conditions—is typically conducted in a laboratory but can be done in natural settings. In the ideal case, two groups—the experimental group and the control group—are formed. The groups should be as similar as possible, except that only the experimental group receives the independent variable (the potential “cause”). Whatever change occurs in the dependent variable (the potential “effect”) from the beginning to the end of the experiment can then be attributed to the independent variable. Experimental research can be used in health settings for purposes such as testing health education materials, innovations in teaching medical students, and new payment mechanisms.
3. **Observational research.** **Observational research**—the systematic observation of people in their natural environment—has also been a valuable data-collection technique for medical sociologists. While it is more difficult to be systematic in using this technique (though an extensive array of techniques to support systematic study is available), it does enable observation of actual behaviors rather than reports of behavior or behaviors performed in artificial settings. Important observational studies have been conducted in such diverse settings as general care hospitals, mortality review conferences, and patient self-help groups.
4. **Use of existing statistics.** Many demographers (those who study population size, composition, and distribution) and other medical sociologists study health problems and society’s reaction to them by drawing upon recorded vital and social statistics. Researchers may examine birth and death records, medical charts and insurance forms, and any compiled statistics on mortality, morbidity, medical resources, or any other aspect of health care systems.

### Getting at Socially Constructed Reality.

Although the scientific method continues to dominate in sociology, most sociologists acknowledge that reality is often more subjective than objective. These perspectives direct sociology to help us to understand the “socially constructed” nature of belief systems about health, illness, and healing practices. Cultures vary in their perception of what constitutes good health, in factors that shape health (e.g., Chinese belief in the presence of a vital spirit in the body), and in views of appropriate healing procedures (e.g., the importance of social support in Navajo healing). These perspectives are examined further in this text in chapters on social stress, illness behavior, and alternative healing practices.

## THE ROLE OF THE MEDICAL SOCIOLOGIST IN THE TWENTY-FIRST CENTURY

What will be the future role of the medical sociologist? Perhaps three aspects will be most important.

First, the most important objective of the medical sociologist will continue to be to demonstrate and emphasize the important influence of cultural, social-structural, and institutional forces on health, healing, and illness. Medical sociologists must be evermore vigilant in using their “theoretical and methodological skills to address interesting and important questions” in order to ensure that the sociological perspective continues to influence public discussion (Pescosolido and Kronenfeld, 1995:19).

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Second, medical sociologists need to maintain their spirit of free and critical inquiry (Bloom, 1990). Responding to an article that suggested that some physicians were concerned about sociologists' more liberal ideology, Mechanic (1990:89) wrote:

It seems clear that these commentators . . . prefer a sociology that is adjunct to medical activity and accepting of its basic premises. Such a sociology would simply be a servant to medicine not fulfilling its larger responsibility to understand medicine as a social, political, and legal endeavor; to challenge its curative and technological imperatives; to examine equity of care in relation to class, race, gender, age, character of illness, and geographic area; and to study the appropriate goals and objectives for health care in the context of an aging society with an illness trajectory dominated by chronic disease.

Finally, medical sociologists should continue to seek interdisciplinary collaboration. In the early years of the field, medical sociologists debated whether their primary focus should be on the **sociology of medicine** (i.e., advancing sociological theory and method through research in the medical field) or on the **sociology in medicine** (i.e., making practical contributions to the practice of medicine) (Straus, 1957). While many medical sociologists have clearly identified more with one or the other of these approaches, the distinction has blurred over time, and today most researchers

understand that good sociological research can simultaneously contribute to the development of medical sociology *and* to improved health care (Bird, Conrad, and Fremont, 2000). Straus (1999) has recently suggested that it is even possible to take a critical perspective while working in a medical setting as long as it is perceived to be constructive, objective, and not blatantly antagonistic.

Mechanic (1995:1492) has noted that “the major health problems facing national systems are complex and multifaceted and not easily amenable to analysis from the perspective of any single discipline.” Coe (1997:6) has encouraged working with other social scientists (as well as others involved in health research) as a way of creating “opportunities to strengthen a sociological perspective” and deepening “our understanding of the complexities of human behavior in the context of health and illness.” Zussman (2000) has written persuasively about how genuine understanding of ethical issues in medicine can be derived by utilizing both normative reflection (the primary approach of medical ethics) and empirical description (the primary contribution of sociology). Several medical sociologists (Fremont and Bird, 1999; Pescosolido, 2006, 2011; Seabrook and Avison, 2010) have recently urged greater efforts to integrate social and biological explanations of matters related to health, healing, and illness.

### SUMMARY

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Medical sociology emerged as a scholarly field of inquiry in the 1950s and 1960s. Four factors were primarily responsible for this emergence: (1) a shift from acute infectious diseases to chronic degenerative diseases as major sources of morbidity and mortality, (2) increased focus on behavioral factors related to health and illness, (3) increased recognition of the importance of the patient–physician relationship, and (4) the increasingly complex structure of the health care system. Simultaneously, outside agencies (e.g.,

medical schools and government agencies) were taking increased interest in the field, and medical sociology was becoming institutionalized as a special interest section in the ASA.

Sociology's contributions to the study of health, healing, and illness emanate from the sociological perspective (the understanding that human behavior is largely shaped by the groups to which people belong and by the social interaction that takes place within those groups); sociology-based theoretical approaches

(functionalism, conflict theory, and interactionism); and the scientific foundation and critical perspective of the discipline.

The most important tasks of medical sociology are to demonstrate and emphasize the

important influence of cultural, social-structural, and institutional forces on health, healing, and illness, and maintain a spirit of free and critical inquiry while recognizing the interdisciplinary basis of health and illness.

## HEALTH ON THE INTERNET

This chapter discusses recent calls for health researchers in various disciplines to work more closely together. Learn more about three of the social science disciplines that investigate health, healing, and illness by checking out their Web sites.

Medical sociology: <http://www2.asanet.org/medicalsociology/index.html>

Medical anthropology: <http://www.medanthro.net>

Health psychology: <http://health-psych.org>

What is the main focus of each of these three fields? What similarities and differences do you note?

## DISCUSSION QUESTIONS

1. In order to understand better the approach and work of medical sociologists, select a recent article from the *Journal of Health and Social Behavior* or *Social Science and Medicine* or any journal assigned by your professor. Identify its main subject, theoretical approach, data-collection technique, and main findings. How does the approach of a medical sociologist differ from that of a medical journalist or that of a layperson attempting to understand some subject related to health, healing, and illness? Identify a specific question related to medical sociology or an issue that you might be interested in studying.

2. The health and medical sector is an extraordinarily broad and important component of society. One way of identifying the importance of health, healing, and illness in society is to note the extent to which the social institution of medicine is closely interwoven with all or almost all other social institutions. Identify how the social institution of medicine interrelates with each of these other social institutions:

science	government	economy
education	family	law
religion	the arts	recreation

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## CHAPTER 2

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# *The Development of Scientific Medicine*

### Learning Objectives

- Explain how medical belief systems fluctuated from the earliest civilizations to the Hippocratic Era to the Medieval Era to the Renaissance and the development of scientific medicine to today's focus on technology in medicine.
- Identify and discuss three significant contributions of Hippocrates (the “Father of Medicine”) to the understanding of health, healing, and illness.
- Describe the practice of medicine in early America.
- Identify and discuss the effects of the Civil War on medical understanding and on the practice of medicine.
- Compare and contrast the views of Paul Starr and Vicente Navarro on the “cultural authority of medicine.”

Today's healing practices and health care systems have developed through centuries of efforts to understand disease and illness and to find effective means to protect and restore health. Understanding this historical development is important both as an end in itself and as a means to a better understanding of current patterns.

Compiled histories of medicine are not in short supply, but few of these histories attempt to place the development of medicine within a societal context. A “sociological approach to the history of medicine” would include at least the following: (1) a “sociology of medical knowledge”—that is, the ways in which societies “socially construct” medical knowledge; (2) the development and evolution of the primary activities in which physicians engage, including patient education, prevention, examination and diagnosis, prognosis, curative techniques, and palliative care (relief from suffering); (3) the evolution of the organization of medical practice, including medical specialization and

the relationship to hospitals and corporations; (4) the development of hospitals and their changing role within society; and (5) the development and evolution of public health measures including nutrition, sanitation, and public education (McKeown, 1970; White, 2009).

This chapter gives some attention to all of these themes but focuses primarily on the first theme by describing the historical development of scientific medicine and tracing the ascendancy of scientific medical authority in America. It demonstrates that the discovery and acceptance of medical knowledge can be understood only in social context and is, at the least, partially dependent on both cultural values (including orientation toward medicine) and the configuration of powerful interests within the society. In particular, notice the following:

1. The “constantly shifting character” (Cassady, 1991) of medicine as understanding of disease causation shifts between a supernatural and

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scientific basis; as the role and popularity of alternative healing philosophies ebb and flow; and as the emphasis within medicine centers more on preventive care or curative care.

2. The constant struggle of physicians and medical researchers to discover causes of disease and effective cures for them and the typically long time lag before major discoveries are accepted and have any impact on patient care.
3. The important impact on medicine of other major institutions in society including the government, the church, the family, and science.
4. The constantly evolving view within societies of the nature and inevitability of disease and of the patient's responsibility for self-care.

### A BRIEF HISTORY OF MEDICINE

One of the most significant events in the development of scientific medicine is that many diseases can be traced to specific causes such as bacteria, viruses, parasites, and genetic impairments. Chief credit for this discovery is typically assigned to Louis Pasteur's formulation of the germ theory of disease in the 1860s and 1870s. Prior to this time, both lay and professional understanding of the causes of disease and illness had evolved through a multitude of approaches and explanations. The first part of this chapter traces this development of scientific medical knowledge.

### EARLY HUMANS

Although the first forms of writing did not appear until between 4000 and 3000 B.C., paleontologists have used human remnants such as teeth, bones, and mummies, as well as works of art, to study early disease and its treatment. They have learned that disease and injury are as old as humankind (and the presence of bacteria and viruses far older). There is evidence of tumors, fractures, parasitic diseases, arthritis, osteomyelitis, and dental caries that predate written communication.

How did early humans interpret these medical calamities?

Primitive man, noting the rising and setting of the sun and moon, the progress of the seasons, the birth, growth, and inevitable death of plants, animals, and humans, did not take long to arrive at the supposition that these phenomena did not occur by chance . . . it seemed logical to suppose that they were ordered by some all-powerful god, or gods, and equally logical was the belief that fortune and misfortune were signs of the gods' pleasure or displeasure. (Camp, 1977:11)

### Supernatural Belief Systems

These “magico-religious” or **supernatural explanations of disease** evolved into complex belief systems. Diseases were caused either by direct intervention of a god or spirit or through a sorcerer (a mortal in control of supernatural forces) or through the intrusion of some foreign object into the body. This “object” might have been a spirit or demon or even something more tangible such as a stone or pebble (Magner, 2005).

Early humans used several divination procedures (e.g., crystal gazing or trances) to read the intentions of the supernatural. Once diagnosis was made, appropriate cures were employed. Religious rituals such as prayer, magic spells, and exorcism were used when the origin of the disease was traced to supernatural forces, and more physical means including a “sucking-out” procedure, artificially induced vomiting, and “bloodletting” (draining blood from the body to extract the foreign presence or redistribute the blood, a practice that survived for centuries) were used in cases of object intrusion (Magner, 2005).

The most amazing procedure used was skull **trephination**—using sharpened stones to drill or carve a hole in the skull. The exact purpose of trephination is unknown, but many believe it was done to release evil spirits. The holes drilled were of various sizes and configurations depending upon the diagnosis. Fossil studies demonstrate that many of the patients survived the surgery, and some of them received additional trephinations years after the original one (Kennedy, 2004).



Trephination is considered by many to be the first surgical technique. It involved carving a circular section from the skull in order to reduce pressure or to release evil spirits causing sickness. It likely started as long as 7,000 years ago and continued for perhaps 2,500 years.

### The First Physicians

Specialists (often religious figures) emerged to serve as intermediaries with the gods. Known as

the **shaman** (or the “witch doctor” or “medicine man”), this was typically a highly revered, much-feared individual who often provided effective medical care. Many were adept at observing animals and noting the plants and herbs they used for relief, and many practiced trial and error medicine—experimenting with a variety of substances or procedures till the most effective were identified. The kinds of diseases most common in early societies—rheumatic diseases, digestive disorders, skin diseases, and gynecological disorders—were problems more amenable to cures available at the time than would be epidemic diseases, such as typhoid, measles, and smallpox, which many believe were not yet present.

Of course, these techniques were only part of the medical arsenal of the shaman. Prayer and incantation, ritualistic dancing, and sacrifices were also used to capture the attention of the gods. These techniques also increased the patient’s confidence in the cures being attempted—an important psychotherapeutic benefit (Magner, 2005).

### THE EGYPTIAN CIVILIZATION

Of the various ancient civilizations whose medical practices have been studied in some depth, Egypt has received the most attention. This



#### IN THE FIELD

#### *THE CONTRIBUTIONS OF IMHOTEP AND ANCIENT AFRICANS TO MEDICINE*

A considerable body of knowledge attests to the fact that Africans in antiquity made significant contributions to medicine and may have been the originators of medical practice. Though current medical history texts give little attention to the contributions to medicine of people of color, Greek philosophers, historians, and physicians—who are given much credit—wrote of what they learned from the writings and oral traditions of Africans.

Some now refer to Imhotep—an African engineer, architect, scribe, priest, builder of

tombs, and possibly a physician who lived in the 2600s B.C.—as the “Historical Father of Medicine.” He is known to have been an advisor to the king, to have built impressive tombs and possibly the first hospital, and to have produced journals (now lost) on surgery, anatomy, pathology, diagnosis, and experimental scientific observation. His legend grew following his death, and he became a deified figure in Egypt (Makah and Jalil, 2009; Pickett, 1992).

is due to Egypt's reputation as an especially healthy civilization and to an abundance of written material and other forms of evidence (medical writings preserved on the papyrus reed and well-preserved mummies) that exist from the 3,000-year-old Egyptian civilization. Of interest is the fact that many Egyptian physicians gave credit to earlier African civilizations (see the accompanying box, "The Contributions of Imhotep and Ancient Africans to Medicine").

The most important development in Egyptian medicine is the evolution of physicians into specialists as most of them focused on a particular disease or a particular part of the body. Physicians were also religious leaders, and each was devoted to a different god. As a result, they tended to focus on whatever diseases were associated with their deity. Not surprisingly, given the hot and dusty desert conditions, most physicians specialized in eye care.

Egyptian medicine also produced two noteworthy documents: the **Code of Hammurabi** (a Babylonian King who lived from 1728 to 1686 B.C.), which is possibly the first codified set of guidelines regarding responsibilities of physicians, and the *Ebers Papyrus*—a type of medical textbook summarizing extant knowledge about several disease categories that offered tips on diagnosis, prognosis, and therapeutic measures, including over 800 specific prescriptions (Magner, 2005).

## GREEK AND ROMAN SOCIETIES

One of the most remarkable civilizations of all was that of Greece during the last 2,000 years B.C. The substantial contribution of the Greeks to medicine is consistent with their contributions to philosophy, art, theater, sculpture, government, and other areas.

In the beginning part of this era, religion and medicine were still inextricably linked. Apollo, the sun god, was also god of health and medicine and believed to be the inventor of the healing art. According to Greek legend, Aesculapius was the son of Apollo and such a brilliant healer that by the eighth century he was

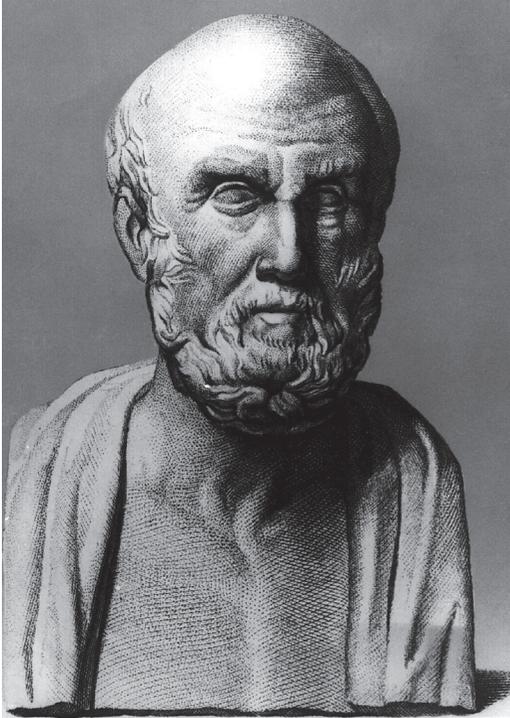
considered the Greek god of health. Temples called "asklepieia" were created where priest-physicians practiced the healing ceremony of incubation or "temple sleep."

Patients who came to the temple would purify themselves (bathe), fast, read about the cures of former patients, and make offerings to Aesculapius. They would be given drugs to induce sleep. During the night, harmless "sacred" snakes would crawl around the patients and lick their wounds, after which attendants would apply salves. Lore has it that cures were invariably produced (Magner, 2005).

### Hippocrates—the "Father of Medicine"

Simultaneously, a more empirically based medicine was developing, and many physicians enjoyed favorable reputations. The most renowned of these physicians is certainly **Hippocrates** of Cos (460–377 B.C.)—the "Father of Medicine." Hippocrates was born in Cos, was well educated, became a successful and much beloved physician, and was an esteemed teacher. He is best known for three major contributions:

1. ***The principle of natural, rather than supernatural, explanations for disease.*** Hippocrates taught that disease is a natural process and that symptoms are reactions of the body to disease. He further emphasized that the chief function of the physician is to aid the natural forces of the body. With this principle, sick people ceased to be considered as sinners and sinners began to be thought of as sick people. Hippocrates emphasized that the body possessed its own means of recovery and that a healthy man was one in a balanced mental and physical state because of complete harmony of all the humors (Green, 1968:31). Hippocrates subscribed to the **humoral theory of disease**—a dominant approach for centuries. The humoral theory postulates that there are four natural elements in the world (air, earth, fire, and water) and four natural properties (hot, cold, dry, and wet). In the body the elements are blood (hot), phlegm (cold), yellow bile (dry), and black bile



Hippocrates of Cos, the “Father of Medicine,” advocated natural rather than supernatural explanations for disease.

(wet). A person is healthy when these four humors are in balance and when the individual is in balance with the environment. Therefore, one seeks moderation in life so as not to upset the balance. Sickness is created by imbalance. These imbalances are detected by physical symptoms. A warm forehead (fever) indicates excessive heat; a runny nose is a sign of excessive phlegm. Appropriate cures seek to restore balance. For example, cold food was a remedy for heat-related diseases, and a very dry environment was created for the patient with excessive phlegm.

2. **His writings.** One of the most important sets of medical writings ever collated is the *Corpus Hippocraticum*, more than 70 books, monographs, and essays covering a variety of aspects of medicine. Hippocrates wrote of the importance of observing disease progression and described his own copious note taking of medical histories, symptoms,

and reactions to therapy when treating his patients. He encouraged physicians to treat the whole patient, not just a particular organ or particular symptom (Porter, 2006).

3. **His teaching of human compassion and ethical standards as illustrated in the Hippocratic Oath.** The first section of the **Hippocratic Oath** (see the accompanying box, “The Hippocratic Oath”) expresses reciprocal commitments made by physicians and their apprentices and establishes teaching as a primary obligation of the physician. The second portion of the oath is a brief summary of ethical guidelines. Some of the pledges—for example, against doing abortion, cutting for stone, and facilitating a suicide—raise questions since all were common practice at the time and were activities in which Hippocratic physicians are known to have engaged (Nuland, 1995). Nevertheless, the oath commanded significant attention then as it does now (even though most physicians no longer pledge to it).

Despite the popularity of Hippocrates, Greece could be described as an “open medical marketplace” that was comprised of several types of religious, magical, and empirical medical practitioners. Because there was no medical licensing, anyone could be a healer, and patients used the services of practitioners representing a multitude of medical philosophies.

### Roman Medicine

Medicine did not flourish in Rome. Roman households ministered to the sick in their own families, often using treatments similar to those used in early societies. Beginning in the third century B.C. (Rome was founded in 753 B.C.), Greek physicians began filtering into Rome. At first, these physicians were persecuted, partly out of a jealousy that Rome was not producing its own physicians. Cato the Censor (234–149 B.C.), the man given credit for being the first important writer in Latin, prohibited all in his family from using these physicians (he relied instead on raw cabbage taken internally and



## IN THE FIELD

### THE HIPPOCRATIC OATH

I swear by Apollo the physician, and Aesculapius, Hygeia, and Panacea and all the gods and goddesses, that, according to my ability and judgment, I will keep this oath and this covenant:

To reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring on the same footing as my own brothers, and to teach them this Art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples who have signed the covenant and have taken an oath according to the law of medicine, but no one else.

I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous.

I will give no deadly medicine to anyone if asked, nor suggest any such counsel; and in

like manner I will not give to a woman an abortive remedy. With purity and with holiness I will pass my life and practice my Art.

I will not cut persons labouring under the stone, but will leave this to be done by such men as are practitioners of this work.

Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, of freemen and slaves.

Whatever, in connection with my professional practice, or not in connection with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and practice the Art, respected by all men, in all times. But should I trespass and violate this Oath, may the reverse be my lot.

rubbed on the body as a medicinal cure). Pliny the Elder himself is said to have remarked, “The honour of a Roman does not permit him to make medicine his profession, and the Romans who begin to study it are mercenary deserters to the Greeks” (Camp, 1977).

Perhaps for this reason, physicians openly competed for status and reputation. Aggressive self-promotion and public humiliation of rivals were not uncommon. Physicians sought out medical cases that had been difficult to solve and attempted public, “spectacular” diagnoses or cures that would be widely publicized and, when successful, would lead to improvement in social standing (Mattern, 1999).

### Asclepiades

The arrival of Asclepiades (a Greek physician born in Asia Minor in 124 B.C.) initiated a general increased regard for physicians. Skeptical

of the idea of the “self-healing” potential of the body, Asclepiades believed that health and illness were determined by the condition of the pores. If the pores were either too open or too closed, illness resulted. He prescribed massage, diet (wine was a common recommendation), and baths as techniques to alter the structure of the pores (Magner, 2005). Asclepiades became a popular figure, founded a school that survived his death in 60 B.C., and influenced Julius Caesar to decree in 46 B.C. that Greek slave-doctors were free and had full rights of citizenship.

### Roman Contributions to Medicine

Rome’s major medical contributions were to the field of public health. Recognizing that unsanitary conditions contributed to the spread of disease, the government constructed a system of aqueducts to obtain pure water, built an elaborate system of public baths, passed ordinances

requiring street cleanliness, and established a system of hospitals to tend to the sick.

### Galen

The other most pivotal figure of this era is **Galen**, a physician whose ideas dominated much of medicine for the next 12 centuries. Born in Asia Minor in A.D. 131, he studied Hippocratic medicine (and its rival theories) and eventually migrated to Rome at the age of 34. There he became famous as a physician, author, and medical researcher.

Galen made extensive contributions to the understanding of anatomy. Since he was prevented by Roman law from using human cadavers for study, Galen relied on the dissection of monkeys and pigs and on the study of the skeletons of criminals. Based on these studies, he refuted several common medical notions (e.g., that the heart was the origin of the nerves and that blood vessels originated in the brain) and added to the existing knowledge about bones, muscle groups, the brain, and various nerves. Yet he could not be dissuaded from his belief in “pneuma”—that certain vital spirits (but not blood) circulated throughout the body (Magner, 2005).

Galen, a rather dogmatic individual who was absolutely convinced that his ideas were accurate, vehemently discouraged others from further investigating his work. Though we now know many of his theories to be false, they were extremely influential during his time and for several subsequent centuries. On the other hand, his title as “the Father of Experimental Physiology” seems well deserved, as he was probably the foremost medical experimentalist until the 1600s.

## THE MEDIEVAL ERA

The end of the Western Roman Empire is generally pegged at A.D. 476 when the conquest of Europe by the barbarians was completed. In the East, the Byzantine Empire (based in Constantinople) survived and became a center of civilization. The time period between (roughly)

A.D. 500 and A.D. 1500 is referred to as the Medieval Era.

### Monastic Medicine

Medical practice in the first half of this era is referred to as **monastic medicine** since medicine was based in the monastery. Medical practice was officially controlled by the Church in Byzantium (the early Christian church), which was extremely hostile to physicians. This hostility was based on two precepts: (1) Disease and illness are beneficial in that they test one’s faith and commitment to God and the church, and (2) all illnesses occur as punishment by God, possession by the devil, or the result of witchcraft.

These religious causes required religious cures, typically, prayer, penitence, or intercession with saints. Particular diseases and body parts were believed to have a patron saint who could inflict pain and enact cure. For example, if one had a toothache, prayer was made to Saint Apollonia. According to the church, private physicians represented a form of blasphemy in their efforts to cure disease apart from religious intervention. In reality, many people from all stations in life considered secular healing to be an appropriate complement for religious healing and often used the services of herbalists, midwives, wise women, and lay specialists. These practitioners are largely responsible for preserving much of the medical knowledge that had been passed on to them and ensuring its transmission to later generations (Bennett, 2000).

### Arabic Medicine

The commonwealth of Islam was founded in 622 by Mohammed. During the next 100 years, his followers conquered almost half of the world known at that time. By 1000, the Arab Empire extended from Spain to India. The Arabs were intensely interested in medicine: They built famous teaching hospitals, bestowed high prestige on private physicians, and basically served as the link between Greek medicine and Renaissance medicine (Magner, 2005).



## IN THE FIELD

### A MEDIEVAL JOKE

If you want to be cured of  
I don't know what  
Take this herb of  
I don't know what name

Apply it  
I don't know where  
And you will be cured  
I don't know when

## Scholastic Medicine

The second half of the Medieval Era is referred to as the time of **scholastic medicine**. In 1130, a proclamation from the Council of Clermont forbade monks from practicing medicine because it was too disruptive to the peace and order of monastic sequestration. Rather than shifting medicine to the private sector, medical practice became the province of the secular clergy, and universities began to play a prominent role in the education of physicians. Though it is impossible to fix the precise date at which universities in the modern sense first developed, twelfth- and thirteenth-century schools became centers where a variety of disciplines were taught (probably the most important legacy provided by the Middle Ages) (Magner, 2005).

Two other occurrences during this era are significant: (1) There were numerous devastating epidemics (leprosy reached a peak in the thirteenth century; epidemics of scurvy were common; and the Bubonic Plague—**Black Death**—caught hold in Europe in the 1340s and killed an estimated 43 million people in 20 years) that made clear the total helplessness of physicians to restrain disease (Porter, 2006), and (2) the earliest hospitals developed in the monastic period (though they were mostly places of refuge for the poor, the clergy did provide caring concern for those who came to them).

## MEDICINE IN THE RENAISSANCE

The fifteenth and sixteenth centuries—the Renaissance—represent a rebirth in the arts and philosophy, scientific endeavor, technological

advancement, and medicine. The scholarly blinders of the Middle Ages were discarded in favor of *humanism*, which stressed the dignity of the individual, the importance of this life (and not solely the afterlife), and spiritual freedom.

### Andreas Vesalius

A key early event of the Renaissance was the refutation (at long last) of many of Galen's ideas. Andreas Vesalius (1514–1564), a product of a Brussels medical family, contradicted Galen's description of anatomy. Using corpses purchased from grave robbers, he discovered that Galen's descriptions accurately portrayed monkeys but, in many respects, not humans. For centuries, people had believed Galen's conclusions were based on human dissection, yet they were not! Vesalius contended that if Galen was wrong about anatomy, he might be wrong about his other medical conclusions (e.g., pneumonia). Yet allegiance to Galen's ideas was so strong that Vesalius was dismissed from his university position for this heresy, and his career as an anatomist was finished (though he later became a court physician). It was not until 1628 that Englishman William Harvey demonstrated conclusively that blood circulates throughout the body in an action stimulated by the heart (Kennedy, 2004).

### Paracelsus

The humoral theory of disease also came under attack. Philippus Aureolus Theophrastus Bombastus von Hohenheim (1493–1541)—Paracelsus, for short—held that God revealed

medical truth to humans through revelation. A devotee of astrology and alchemy (the chemistry of the day), he criticized the humoral theory and spent much of his life searching for specific pharmacological remedies and produced some modest successes. Though often disliked for his attacks on Galen, and a thoroughly contradictory fellow, Paracelsus is nevertheless an important figure in medical history.

### Medical Specialization

During the Renaissance, the medical specialization that had begun to develop in the ninth or tenth century became more pronounced. *Physicians* were those who had graduated from a school of medicine. They provided diagnosis and consultation and were expected to bear themselves as gentlemen so as to match the demeanor of their wealthy patients. *Surgeons* were lower in status because they practiced skills learned in apprenticeship. Their primary responsibilities were to treat external complaints (e.g., wounds and abscesses), repair broken bones, and perform minor surgeries. In some areas, *barber surgeons* were available to perform major surgery (often on war wounded), and many also practiced bloodletting. Approximately equal in prestige to surgeons, *apothecaries* dispensed herbs and spices prescribed by physicians and, especially in the countryside, often took on the physician's duties. Nevertheless, self-medication and lay healing were very common in the Renaissance, and families placed priority on staying well.

## MEDICINE FROM 1600 TO 1900

### The Seventeenth Century

The development of modern science is the key event of the seventeenth century.

This scientific revolution replaced previous concepts with new ideas of matter and its properties, new applications of mathematics to physics, and new methods of experimentation. By 1700, a “new world” view had taken form. Modern science rested on interchange and mutual verification

of scientific ideas and information by investigators in many countries and these needs were satisfied by the development of scientific societies and publications. (Green, 1968:83)

In part, this scientific revolution was stimulated by several scientist-philosophers of the century, most notably Francis Bacon (1561–1626) and René Descartes (1596–1650). Bacon argued for “natural” explanations for events that could be understood through systematic observation and experimentation. Descartes invented analytical geometry and, through his work on momentum, vision, reflex actions, and a mind–body duality, laid the basis for a science of physiology.

**William Harvey.** The most important physiological advancement in the century was Englishman William Harvey's (1578–1657) confirmation of the circulation of blood. Though the idea had been suggested by others earlier in history, Harvey was the first to offer experimental and quantitative proof.

Throughout his life, Harvey was a clinician-researcher. He maintained a clinical practice of medicine (in his later years being physician to kings and other members of the aristocracy) while he devoted himself to medical investigation in anatomy and physiology. Primarily through analysis of dissected and vivisectioned animals, observation of the weakening heartbeat of animals as they were about to die, and various forms of experimentation on human heartbeat, Harvey proved that the contraction of the heart drove blood into the major arteries toward the body's peripheries (and that cardiac valves prevented blood from reentering the heart through the arteries). When the heart is resting between beats, it is filled with blood that has been carried to it by the veins. Though Harvey's finding removed a key obstacle to medical progress, the discovery was met with skepticism by some and open hostility by others. It had little influence on the treatment of patients during Harvey's time (even in his own practice) as physicians waited for further substantiation of his main ideas (Nuland, 1995).

**Clinical Medicine.** How did all this scientific theorizing affect patient treatment? Very little. Even those theories now known to be accurate were met with skepticism, and the process of incorporating new knowledge or techniques into medical practice was quite slow. Medical superstitions were common, routine treatments often dangerous, and quackery quite prevalent. On the other hand, some seventeenth-century physicians focused their attention on the physician–patient relationship and on the body’s self-healing capacity, and in this way, maintained the Hippocratic tradition.

### The Eighteenth Century

The eighteenth century, the “Age of Enlightenment,” is marked by efforts to collate the advancements of the preceding century and further refine knowledge in all fields including medicine. People perceived that they were living at a special time of rapid growth; more open intellectual inquiry; advancement in the arts, literature, philosophy, and science; and freer political expression.

**Development of a Modern Concept of Pathology.** Though medical progress had been achieved in many areas, understanding of disease causation in the early eighteenth century was little different than it had been 2,500 years earlier. Many still advocated the humoral theory or some variation of it; others traced disease to climactic conditions or focused on structural explanations such as the condition of the pores.

The understanding that diseases are attached to particular organs is traceable to Giovanni Battista Morgagni (1682–1771), an Italian physician and professor of anatomy at the University of Padua. Based on his systematic and thorough note taking of patients’ symptoms, Morgagni developed the **anatomical concept of disease**—that diseases could be traced to particular pathology or disturbance in individual organs. Hence, he directed medicine to seek the originating localized disturbance in a particular organ. It may seem strange to us today that for so long physicians did not connect patients’

symptoms with the corresponding pathological condition. And even those who challenged the prevailing notions of the day, like Andreas Vesalius and William Harvey, relied primarily on the old ways in the actual treatment of their own patients.

**The Emergence of Public Health and Preventive Medicine.** The eighteenth century also witnessed a return to interest in public health. Attention was focused on the unsanitary conditions that prevailed in industry, the armed forces, prisons, and hospitals. The lack of public sanitation in cities and contaminated water supplies were seen as significant threats to health. Individuals were encouraged to attend more to personal hygiene.

The foremost accomplishment of this movement was the discovery of an effective preventive measure against smallpox, a leading cause of death among children. Edward Jenner (1749–1823), a British country doctor, had heard that milkmaids infected by cowpox developed an immunity to smallpox. Through experimentation (on humans), Jenner demonstrated that persons inoculated with cowpox (vaccinated) would not develop the disease. Though initially regarded with suspicion, it was a signal event in the history of preventive medicine (Magner, 2005).

**Alternative Paths of Medicine.** While discussing the advancement of ideas later confirmed by science, competing theories and treatments of the day are often overlooked. The discoveries of Morgagni and Jenner, for example, do not mean that medicine was not simultaneously taking alternative routes. For example, William Cullen of Edinburgh (1712–1790) founded a medical system based on “nervous forces”—that all diseases were a result of overstimulation or an inability to respond to stimulation. Appropriate cures were found in stimulants and depressants. Edinburgh-trained James Graham established a “Temple of Health and Hymen” in London. The temple was filled with beautiful young virgins attired in skimpy costumes who would sing to the sick—an approach that seemed logical to Graham, who believed

that illness could only be cured in the presence of beautiful sights and sounds (Camp, 1977).

### The Nineteenth Century

Many eighteenth- and nineteenth-century inventions stimulated a rapid growth in the iron and textile industries and led to the Industrial Revolution. Industrialization began in England and spread to the rest of Europe and the United States. The development of large industries with many jobs pulled large numbers of workers into concentrated areas. The world was not prepared to deal with the consequences of this urbanization process. The cities that grew up around the industries were severely overcrowded, typically unsanitary, and often lacking safe procedures for food and water storage. These conditions produced a very unhealthy living environment.

**Hospital Medicine.** The first half of the nineteenth century is known mostly for the importance physicians and medical researchers attached to clinical observation. Whereas medicine in the Middle Ages had been centered in monasteries and libraries and in the Renaissance (as in antiquity) was centered on the individual sickbed; in the nineteenth century, for the first time, it was centered on the hospital.

Hospitals had existed for centuries but increased rapidly in number in the 1800s in response to the massive number of people migrating into the newly developing cities. Communicable diseases became commonplace; many of the urban migrants contracted typhoid fever and tuberculosis. Admission to a hospital was the only resort. These patients provided an unprecedented opportunity for clinicians and researchers to observe the sick and search for common patterns in their symptomology, disease progression, and response to medication. By the 1830s, especially in Paris, physician-researchers were increasingly taking advantage of the opportunity to separate patients by condition and specialize in particular conditions in order to expand medical knowledge (Weisz, 2003). Simultaneous advances in science and technology (e.g., the invention of the stethoscope

by Laennec) were extremely important events of this era, but the immediate course of medicine was more strongly influenced by clinical observation in hospitals.

**Laboratory Medicine.** The laboratory became the focus in the second half of the century. The work of Morgagni and others had fixed attention on pathology in particular organs. But no one knew what caused something in the organ to go awry. Many theories existed, and each sought “the” answer to unlock this key mystery. The absence of a correct answer to this question was repeatedly made obvious by the absence of effective cures.

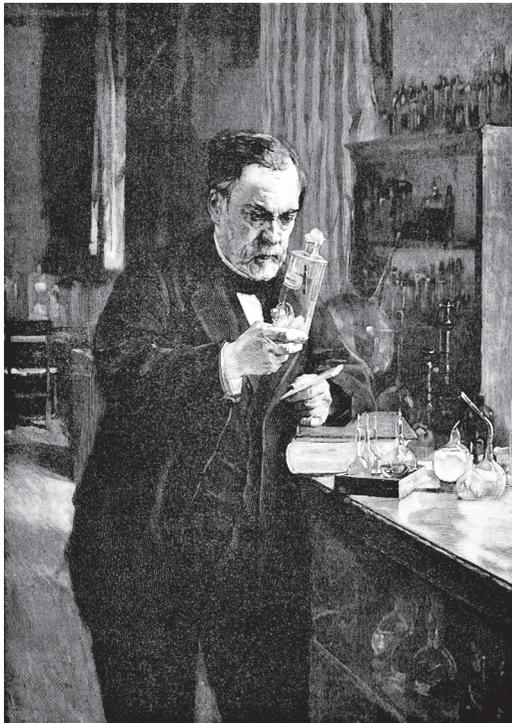
They bled their patients, and they puked them and purged them and blistered them as their professional forefathers had always done; they confused the metabolisms of the sick with dazzling combinations of botanicals whose real actions were only partially known, and often not known at all. They stimulated in cases whose cause was thought to be too little excitation, and they tried to induce a touch of torpor when the opposite was the case. In short, except when the need for amputation or lancing was obvious, the healers didn’t really know what they were doing. (Nuland, 1995:306)

**Discovery of the Cell.** The answer to the mystery is, of course, the cell, and credit for its discovery and interpretation goes to the German pathologist Rudolf Virchow (1821–1902). Virchow pinpointed the cell as the basic physiological matter and understood that disease begins with some alteration in the normally functioning, healthy cell. Effective treatment depends on restoring the cell to normality (or, at least, terminating its abnormal development).

Ironically, while Virchow’s discovery of the human cell appropriately led to study of the physiological changes involved in disease progression, Virchow was a leading proponent of the importance of environmental influences on health and illness. He understood that one’s social class position, occupation, and involvement in social networks had as much to do with creating sickness as cellular changes. He referred to medicine as a “social science” and as the “science of man” and sought to influence societal

conditions that negatively impact human health (Kennedy, 2004). The final 30 years of his life were largely devoted to explorations in the fields of anthropology and archaeology, the development of public health measures in his hometown of Berlin, and advocating for democratic reform and political and cultural freedom in Germany. He was a much beloved figure in Germany at the time of his death.

**The Germ Theory of Disease.** One more question remained. What causes a cell to begin change? What substance or condition initiates the disease process? At various points in history, medical researchers had speculated on the existence of microorganisms, but the speculation never inspired any substantial following. From the 1830s through the 1860s, various researchers observed bacteria under the microscope (minute organisms were first observed under a



Louis Pasteur, called the “Father of Modern Medicine,” is credited with discovering the role of microorganisms as a cause of many human diseases.

microscope by its inventor, Leeuwenhoek, in 1675), but their significance was not understood at the time.

The key figure in the development of the **germ theory of disease** is Louis Pasteur (1822–1895), a French chemist, now called the “Father of Modern Medicine.” In 1857, Pasteur countered prevailing understandings by demonstrating that fermentation (he lived in the wine region) was not solely a chemical event but also the result of various microorganisms. By 1862, he had disproved the notion that bacteria were spontaneously generated.

However, not until 1877, after 20 years of research on microorganisms, did Pasteur turn to human diseases. He identified the specific bacteria involved in anthrax and chicken cholera and, with several of his pupils, identified other disease-causing bacteria, and developed effective vaccinations against them. By 1881, the germ theory of disease was generally accepted. With the impetus provided by Pasteur, one bacteriological discovery after another occurred over the next ten years. Between 1878 and 1887, the causative agents for gonorrhea, typhoid fever, leprosy, malaria, tuberculosis, cholera, diphtheria, tetanus, pneumonia, and epidemic meningitis were discovered (Magner, 2005).

The success of these efforts inspired an exciting period in medical history. Researchers would focus on a particular disease, identify the organism that caused it, determine how it invaded the body, and identify a vaccine that would prevent it. The mass media—newspapers, magazines, health education pamphlets, radio, motion pictures, and even comic books—joined in and promoted medical advancements (Hansen, 2009).

At first, however, it was understood only that vaccines worked. It required another ten years to understand why—that the body produces antibodies in response to the presence of a disease and that these antibodies remain in the body to fight the disease on future exposures (Magner, 2005).

**Progress in Surgery.** Considerable progress in surgery also occurred during this time

due to three essential advancements: (1) an understanding of the “localized” nature of disease (when surgeons believed that diseases were caused by generalized forces, like humors, it made little sense to remove a particular area or organ); (2) an ability to control the patient’s pain in the surgical process (which occurred in incremental stages based on trial and error throughout the nineteenth century); and (3) an ability to prevent wound infection. Throughout history, surgeons recognized that almost all surgeries (even “successful” surgery) resulted in a frequently fatal infection in the wound site. (“The operation was a success, but the patient died.”) Surgery performed in hospitals was especially likely to result in infection.

The importance of “asepsis” (surgical cleanliness) was discovered by Sir Joseph Lister (1827–1912), an English surgeon. Lister’s concern was prompted by the very large percentage (almost half) of his amputation patients who died as a result of infection. At first convinced that infection was caused by the air that came into contact with the wound, Lister altered his thinking when he read descriptions of Pasteur’s work. By the mid-1860s, he realized that sepsis was caused by bacteria in the air rather than the air itself. Lister learned that applying carbolic acid to the wound, his hands, the surgical instruments, and the dressings used to close the wound prevented sepsis from occurring (Magner, 2005).

## THE ASCENDANCY OF MEDICAL AUTHORITY IN AMERICA

### Early America

The earliest explorers to America found that Native Americans relied mostly on supernatural explanations for disease and illness. Diagnosis of disease and illness and treatment were often assigned to separate individuals. Treatment of the sick was typically assigned to a “medicine man” who could intercede with the gods and, it was hoped, drive off evil spirits. Among the most common ailments were those related to the

active and difficult lifestyle: fractures, dislocations, and wounds.

**The Early Colonists.** The earliest colonists endured an excruciatingly difficult voyage across the ocean (typically requiring three or more months) only to be met with tremendous hardship upon arrival. Though warned about the danger of disease by their sponsor, the London Company, the Jamestown settlers in 1607 were more concerned about being attacked by Indians. They selected a site for their new home that had a military advantage (being able to see up and down the river) but was limited by an inadequate food supply and brackish water. Six months after arrival, 60 of the 100 who landed had died from dietary disorders or other diseases.

The Plymouth Colony in Massachusetts had a similar experience. Due to an outbreak of scurvy and other diseases, only 50 of the 102 arrivals survived the first three months. Epidemics and other infectious diseases (e.g., malaria, dysentery, typhoid fever, influenza, smallpox, scarlet fever, yellow fever, and consumption—tuberculosis) were the primary killers during the colonial years (Green, 1968).

The colonists also brought with them from Europe several contagious diseases (e.g., measles, smallpox, and mumps) that had been unknown in the Americas. Lacking immunity to these diseases, Native American populations were very susceptible to them and were decimated in continuing outbreaks. Some historians estimate that up to 90 percent of Native Americans died in this process (Cassady, 1991).

Though health problems were rampant in the colonies, conditions for slaves were especially bad. Subjected to massive overwork; poor food, housing, and sanitation; and inadequate medical care, the health of slaves was very poor in both an absolute and relative sense.

**Early Medical Practitioners.** Medical care was provided by colonists (often clergy) who had some formal education (not necessarily in medicine). The only known medical work published in America in the 1600s was by the

Reverend Thomas Thatcher of the Old South Church in Boston. The Reverend Cotton Mather (1663–1728) (precocious, vain, and fanatical about witches) is often called the first significant figure in American medicine. Though a full-time clergyman, Mather read widely about medicine, wrote numerous treatises and books on anatomy and therapeutic medicine, and is known for an understanding of inoculation far beyond that of his contemporaries.

There were a few trained physicians and surgeons who had migrated to the colonies from Europe, and it was common for young men to attach themselves to these physicians as apprentices (typically, for four to seven years). But, in colonial America, people from all walks of life took up medicine and referred to themselves as physicians. Many added the physician's duties to another job such as food merchant, wig maker, or cloth manufacturer (Starr, 1982). Much medical care was delivered by the apothecary. Although apothecaries primarily made their living by providing drugs and medical preparations, they also gave medical advice,

dressed wounds, and even performed amputations (Magner, 2005).

Obviously, in such conditions, there was little in the way of professionalized medicine. The first comprehensive hospital in the United States (the Pennsylvania Hospital in Philadelphia) was not built until 1751 (and the second not till 20 years later in New York); the first efforts to license medicine came in 1760 (in New York); the first formalized medical school (at the College of Philadelphia) was established in 1765; and the first state medical society (in New Jersey) organized in 1766.

**Domestic Medicine.** Given these conditions, it is not surprising that families assumed primary responsibility for protecting the health of family members and providing therapeutic agents when sick. Women stored medicinal herbs just as they did preserves, made up syrups and salves and lotions, bandaged injuries, and were expected to tend to sick family members. They called on other family and friends in the community for advice and sometimes sought the



## IN THE FIELD

### THE DEATH OF A PRESIDENT

In December 1799, he went out riding and got caught in a cold freezing rain, hail, and snow. When he returned to the house, he went to dinner without changing his wet clothes. He quickly came down with a cold, hoarseness, and a severe sore throat.

He was feeling worse the next morning, and three physicians were called in. A mixture of molasses, vinegar, and butter was provided, but it brought on near-fatal choking. A short time later, a bloodletter was added to the team. At various points during the day, blood was removed from the patient: 12 to 14 ounces at 7:30 A.M., an additional 18 ounces at 9:30 A.M., and another 18 ounces at 11:00 A.M. Despite continued pleadings by his wife for caution, another 32 ounces of blood were let at 3:00 P.M. At 4:00 P.M., calomel (mercurous chloride) and

tartar emetic (antimony potassium tartrate) were administered.

After a brief spell of improvement, his condition began to weaken. Various poultices and compresses were applied. Around 10:00 P.M., he whispered burial instructions to a friend. A few minutes later, the recently retired first president of the United States, George Washington, died.

Did the attempted cure kill the former president? It is clear that the bloodletting did not help and probably hastened Washington's death. It is now generally agreed that Washington had acute bacterial epiglottitis. The youngest of the three physicians had argued unsuccessfully to do a very new technique at the time, a tracheotomy, to assist Washington's breathing. That might have worked and prolonged his life (Morens, 1999; Wallenborn, 1997).

assistance of an older woman in the community known for her healing knowledge (Cassady, 1991; Starr, 1982).

**Domestic medicine** was supported by an ideology that individuals and families were capable of providing for the ill. Texts on domestic medicine (typically written by physicians) were available as was advice through newspapers and almanacs as well as word of mouth. Medical jargon was criticized as being unnecessary and discouraging people from family treatment.

### The Revolution to the Mid-1800s

Though there were only about 3,500 physicians in the country at the start of the Revolutionary War (and only 400 of these had a university medical degree), medicine was making progress. Many of the physicians were as competent as the times allowed, and they took their responsibility to apprentices seriously.

Americans who could afford formal medical education often traveled to the University of Edinburgh, then considered the world's finest medical school, or other European centers. By the turn of the century, the country had established four medical schools (Pennsylvania, Columbia, Harvard, and Dartmouth), each of which sought to offer excellence in medical training (but with a minimum of faculty members; Dartmouth had a one-man medical faculty for over a decade).

The most famous American physician of this era was Benjamin Rush (1745–1813), who after serving an apprenticeship in the colonies, earned a medical degree from Edinburgh. Rush, a signer of the Declaration of Independence and a strong advocate for temperance and the abolition of slavery, wrote extensively on his medical observations and made substantial contributions to the understanding of yellow fever and psychological problems. He argued against the common stigmatization of the mentally ill and urged that those with mental health problems be treated with kindness and humaneness (Magner, 2005).

Nevertheless, he preached and practiced many of the medical errors of the day. He believed all symptoms and sickness were traceable to just

one disease—a “morbid excitement” induced by “capillary tension,” and he recommended and used bloodletting and purging as common cures (Magner, 2005).

America's experience in the Revolutionary War highlighted the lack of accurate knowledge about disease causation and treatment. The annual death rate in the Continental army was approximately 20 percent; 90 percent of war deaths were the direct result of disease (Green, 1968). See the accompanying box, “The Death of a President,” on the use of bloodletting as a factor in George Washington's death.

**Frontier Medicine.** In the early nineteenth century, many of America's most important contributions to medicine occurred in the expanding Midwestern region of the country. This is explained by the extremely difficult life lived by those on the frontier and their susceptibility to disease. Life was difficult; food was often in short supply (Steele, 2005).

While families typically practiced home-made remedies (based on both trial and error and superstition), there were some remarkable medical achievements. Ephraim McDowell (1771–1830), an Edinburgh-trained physician practicing in Danville, Kentucky, was the first to successfully practice ovariectomies (in 1809, he removed a 22- $\frac{1}{2}$ -pound ovarian tumor from a woman who originally had thought herself pregnant). William Beaumont's (1785–1853) experience with a young accidental gunshot victim led to experiments on digestion (Green, 1968). Daniel Drake (1785–1870) wrote about the influence on health of physical and social environmental factors (e.g., climate, diet, ethnicity, lifestyle, and occupation), encouraged collaboration among physicians, and was a strong proponent of physician licensure.

**The Status of Medicine.** Despite these advancements, medicine remained a very downgraded occupation. Physicians had little genuine understanding of disease causation and few effective treatments. Sometimes their cures were helpful (e.g., using willow bark, a source of aspirin, or rose hips, the ripened fruit of the

rose bush and a good source for vitamin C, for fevers). Other remedies may not have been helpful but neither were they harmful (e.g., using fried daisies for a compress or putting feverish patients in a tent with burning tobacco). Some cures, however, were very harmful (e.g., bleeding, purging, amputation for any broken limb, and trephination).

**Alternative Philosophies.** For a variety of reasons, physicians were poorly paid (and often not paid at all). These reasons include (1) the fact that family medicine was preferred by many; (2) the difficulty in seeing a substantial number of patients in a day (people lived far apart and efficient transportation was lacking); (3) the inability of many patients to pay for care (much care was provided on credit but never reimbursed); and (4) the fact that many people offered themselves as physicians (without licensure requirements, there was virtually unlimited entry into the field). Given these conditions, many could not justify the cost of formal education. Through the first half of the 1800s, then, physicians enjoyed little prestige (Starr, 1982).

Many alternative healing philosophies (medical sects) competed throughout this time period. “Thomsonianism” was created by Samuel Thompson (1769–1843), a New Hampshire native, who had unhappy experiences with “regular” physicians. His motto was “Every man his own physician.” He believed that disease resulted from insufficient heat and could be countered by measures that would restore natural heat (e.g., steam baths that would promote massive sweating and “hot” botanicals like red pepper). Over three decades, Thompson’s influence grew, and he attracted many followers (Steele, 2005).

A second important medical sect, homeopathy, was founded by a German physician, Samuel Hahnemann (1755–1843), who viewed diseases as being primarily of the spirit. Homeopaths believed that diseases could be cured by drugs that produced the same symptoms when given to a healthy person (the homeopathic law of “similars”—like cures like). The rationale was that a patient’s natural disease would be displaced after taking a homeopathic medicine by

a weaker, but similar, artificial disease that the body could more easily overcome (Starr, 1982). For example, homeopaths view coughing as the body’s effort to deal with foreign substances in the lung. While medical doctors would typically try to suppress the cough, homeopaths would regard this as stifling the body’s natural curative processes.

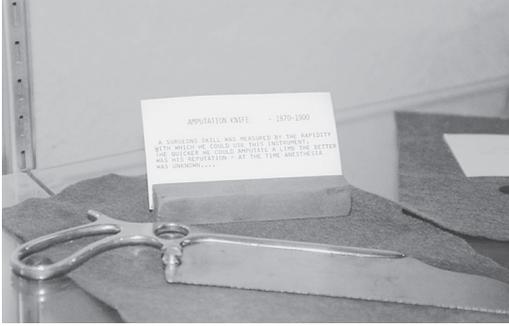
Conventional physicians (who were referred to as allopaths and as practicing allopathic medicine) were vocally critical of homeopaths and others who practiced forms of medicine contrary to the allopaths. They sought to discredit them, often refused to interact with them, and attempted to drive them from the field of medicine. You can read more about the relationship between conventional and alternative medicine in Chapter 11.

## 1850 Onward

At least three events of major significance during the second half of the nineteenth century and the first half of the twentieth century combined to “professionalize” medicine.

**The Civil War.** As has frequently occurred, war dramatizes both the technological strengths and weaknesses of a society. Despite the ferocity of battle between the Union and Confederate forces, disease and illness represented the most lethal forces of the Civil War. An estimated 618,000 persons were killed during the Civil War—one-third from battle fatalities and two-thirds from disease and illness. Diarrhea and dysentery were the major killers, while numerous deaths were caused by smallpox, typhoid, yellow fever, pneumonia, scarlet fever, and infection from surgical procedures.

The wounded often lay on the battlefield for days until a conflict subsided and they could be moved. Wounds commonly became infected. Surgery was very primitive; though anesthesia was often used, it typically took the form of alcohol or opium. In some instances, the patient was hit in the jaw to knock him out; at times, the patient would simply bite down on a piece of wood or even a bullet (hence the expression, “bite the bullet”) as a distraction.



Medical tools of the late 1800s, like this amputation knife, reflect the still primitive nature of medicine at this time.

To remove a bullet, the surgeon would put his unwashed hand in the open wound, squish around until the bullet was found, and pull it out. Scalpels used for amputation (there were approximately 60,000 amputations during the Civil War—three-fourths of all operations) were not washed; the blade was often dull; and whatever sharpening occurred was done on the surgeon’s boot sole. Surgeons bragged about the speed with which they could amputate a limb (the best were called 1–½-minute men). Almost everyone got infections; many died from them. For comparison purposes, in Vietnam, 1 in every 75 wounded soldiers died; in World War II, 1 in 33 wounded died; in the Civil War, 1 in 7 wounded died.

Professional nursing was begun during the Civil War as a means to assist in the treatment of wounded soldiers. The ambulance corps was initiated to move the wounded from the battlefield to field hospitals. These experiences helped medical personnel learn about sanitation and other public health measures.

**Medical Advancements.** As discussed earlier, the discovery by Pasteur that microorganisms cause disease is considered by many to be the single most important medical discovery ever. Coupled with Lister’s recognition of the importance of sepsis and Wilhelm Roentgen’s (1845–1923) discovery of X-rays and their diagnostic utility in the 1890s, much improved disease diagnosis was possible. These

advancements meant that knowledge existed that required specialized training.

The germ theory of disease stimulated a massive and effective assault on infectious disease through prevention (immunization) and treatment. The decades of the 1920s through the 1940s represent years of peak pharmacological success—a time when one “magical bullet” after another was discovered. Insulin was discovered in 1921; vitamin C was isolated in 1928 (enabling better understanding of vitamin deficiency diseases), the same year that a vaccine for yellow fever was produced. The potential for sulpha drugs (in preventing the growth or multiplication of bacteria) was realized in the 1930s, and the ability of penicillin to kill bacteria was fully understood in the 1940s. For a time, great optimism was engendered that all diseases and illnesses could be eradicated.

An unfortunate consequence of this focus on germ-caused disease was the turning away of attention from the “whole person.” Some of the most valuable lessons to be learned from the Hippocratic tradition, such as the influence of lifestyle, the importance of inner harmony and moderation in life, the mind–body connection, and the importance of person-oriented medicine, were lost in the rush to identify microorganismic culprits and methods of conquering them. It would be decades before the importance of these themes would be remembered.

**The Organization of Professional Medicine.** During the first half of the nineteenth century, several localities and states formed professional medical societies. While there was considerable variation in their objectives and activities, each focused primarily on promoting the professionalization of medicine. On May 5, 1847, 250 physicians representing many of these medical societies and some medical schools met in Philadelphia to establish a national medical society, the **American Medical Association (AMA)**.

The motivation to establish the AMA was part ideological and part economic. Competition from homeopaths and other alternative healers was limiting financial success for physicians and

reducing pride in the field. Physicians openly sought more esteem and condemned those with alternative approaches (Magner, 2005; Steele, 2005). In part, the motivation for creating the AMA was similar to Hippocrates' motivation for writing his famous oath: To establish visible standards for the practice of medicine so as to gain a greater confidence from the general public.

The AMA identified its chief goals as the (1) promotion of the science and art of medicine, (2) betterment of public health, (3) standardization of requirements for medical degrees, (4) development of an internal system of licensing and regulation, and (5) development of a code of medical ethics.

However, it would be years before the AMA would develop into an important force in medicine. Several states and some medical schools opposed uniform standards in education and licensing requirements. There was sentiment in the general public against legitimizing a particular medical orientation as it was not clear that the brand of medicine offered by the AMA was superior to the many alternative healing philosophies in existence.

### Forces Stimulating Professionalization

Three pivotal events strengthened the position of the AMA in medicine. First, the discovery of the germ theory of disease offered medical schools a sound approach to disease causation and treatment and a clear rationale to the public for preferring formally trained physicians.

Second, the AMA was eventually successful in achieving one of its key goals: **medical licensure** requirements. The AMA and the country's top medical schools argued that licensure would restrict the practice of medicine to those who had been formally trained and were able to demonstrate competency. Opposition stemmed both from those who wanted to maximize the choices people had available for medical practitioners and from the administrations of many of the lower quality medical schools who feared their graduates would not be able to pass a licensure exam. By the early 1900s, the battle had largely been won as most states required a license to practice medicine.

These two events were necessary, but not sufficient in the AMA's drive for professional authority. By 1900, there were approximately 110,000 physicians in the United States, but only 8,000 belonged to the AMA. Reorganization of the AMA in 1901 (tightening the relationship among local, state, and the national associations and increasing the power of the AMA's governing board) provided a boost to the association, but one thing more was needed—control of medical education.

In the late 1800s and early 1900s, there was considerable variation in the quality of America's medical schools. More than 400 medical schools had been created in the United States in the 1800s. Some, like Harvard and Johns Hopkins, offered sound training in the basic sciences and substantial clinical experience under close supervision and had excellent resources. The majority, however, were not linked to a university and did not have access to the faculty, library resources, and facilities provided in the better schools. In many cases, admission standards were nonexistent, and there was no training provided in the basic sciences and little or no clinical supervision. As late as the 1870s, one physician was quoted as saying, "It is very well understood among college boys that after a man has failed in scholarship, failed in writing, failed in speaking, failed in every purpose for which he entered college; after he has dropped down from class to class; after he has been kicked out of college; there is one unfailing city of refuge—the profession of medicine" (Numbers, 1985:186).

**The Flexner Report.** The AMA contracted with the Carnegie Foundation to study the quality of medical education. They hired Abraham Flexner to conduct a comprehensive study of all the medical schools in the United States and Canada. Upon hearing of this study, many schools closed immediately rather than being condemned. Flexner's team visited the 155 remaining schools. His final report, the **Flexner Report**, issued in 1910, praised the efforts of many schools (Harvard, Western Reserve, McGill, Toronto, and especially, Johns

Hopkins) but lambasted those offering inferior programs. He recommended that the number of schools be reduced to 31 and that medical education be subjected to formal regulation.

### The Great Trade of 1910

The only national standards available for accrediting medical schools were those that had been prepared by the Council on Medical Education (CME) of the AMA. In 1910, the states and the federal government made a deal with the AMA. In return for providing the best and most efficient health care system, the states and the federal government gave the CME monopoly over the production and licensing of physicians, including the power to establish standards for medical schools. In this **Great Trade of 1910**, the AMA was given a near-exclusive right to regulate the medical profession. With the power of knowledge supplied by the germ theory of disease and the organizational legitimacy provided by the states and the federal government, the powerful position of the AMA was secured. In turn, the AMA institutionalized scientific medicine as the foundation of America's health care system.

### PERSPECTIVES ON THE ASCENDANCY OF MEDICAL AUTHORITY

Attempts to interpret and explain the ascendancy of medical authority in the United States have followed various lines. Two contrasting approaches, that of Paul Starr and Vicente Navarro, are summarized here.

#### Paul Starr

Paul Starr's *The Social Transformation of American Medicine* (1982) is a fascinating and well-documented description and analysis of the evolution of the medical profession in America. Starr (who won the Pulitzer Prize for this work) describes the rise of medical authority in America, as medicine was transformed from a relatively weak and poorly regarded

occupation into a powerful and prestigious "sovereign" profession, and how the efforts of medicine to maintain professional autonomy by limiting government control have left it open to being taken over by corporatization. The second of these points will be examined in later chapters; the first point addresses the bases for the ascendancy of medical authority in America and is discussed here.

Starr acknowledges the synergistic relationship between the advance of science and the professionalization of medicine but contends that something more than the former is needed to explain medicine's acquisition of economic power and political influence in America and its ability to shape the health care system. Paul Wolpe summarizes this point.

A profession's power rests on its consensually granted authority over a specific, cultural tradition. Knowledge and maintenance of that tradition is the profession's social capital, and it must guard that capital from challenges while projecting an aura of confidence, competence, trust, and self-criticism. Professions institutionalize control over social capital by establishing licensing procedures, internally-run educational institutions, and self-regulation. But institutional legitimacy, while somewhat self-sustaining, also depends on ongoing public acceptance of a profession's claim of exclusive expertise over a realm of specialized knowledge. Lacking broad coercive powers, professions have developed strategies to protect their socially granted right to interpret their particular cultural tradition. (Wolpe, 1985:409)

Starr suggests that professions develop authority in order to maintain their position. This includes social authority (Max Weber's notion of controlling actions through commands; authority is typically built into laws or rules or bureaucratic protocol) and cultural authority (which Starr defines as, "the probability that particular definitions of reality and judgments of meaning and value will prevail as valid and true") (Starr, 1982:13). **Cultural authority of medicine** is manifested in the "awe and respect from the general public and legislators" that allow medicine to set its own conditions of practice (e.g., site of care and

payment mechanism) (Anderson, 1983:1243). While social authority can be legislated, professions must “persuade” publics that they are deserving of cultural authority.

The triumph of the regular profession depended on belief rather than force, on its growing cultural authority rather than sheer power, on the success of its claims to competence and understanding rather than the strong arm of the police. To see the rise of the profession as coercive is to underestimate how deeply its authority penetrated the beliefs of ordinary people and how firmly it had seized the imagination even of its rivals. (Starr, 1982:229)

What structural changes in medicine resulted from this “social transformation”? Starr (1982) delineates five key changes: (1) The growth of hospitals created a desire for hospital privileges and referrals, which caused physicians to become more colleague dependent and less patient dependent; (2) gaining control of medical education and the licensure process enabled the profession to restrict entry into the field and shape the evolution of the profession; (3) having medicine viewed as a special type of field legitimated the expenditure of enormous sums of public money for hospital construction, medical education, medical research, and public health; (4) physicians gained nearly complete control over conditions of medical practice (e.g., the setting of fees) and established significant political influence; and (5) medicine established very clear professional boundaries that were to be respected by others.

By the 1920s, the ascendancy of medical authority was clear. Though the sovereignty of medicine would not peak for several decades (probably around 1970), its prominent position and ability to control the health care system were firmly established.

### Vicente Navarro

An alternative view of the ascendancy of medical authority in America is presented by sociologists and medical historians who follow a social conflict approach. Vicente Navarro, a Marxist scholar who has written extensively

about medicine, disagrees with three assumptions he finds in Starr.

Starr’s interpretation of America sees the past and present structure of power in the United States as reflecting the wishes of the majority of Americans. To see the structure of power in America as the outcome of what Americans want, however, is to beg the question of which Americans. If by Americans it is meant the majority of Americans, then two assumptions are being made. One is that the majority of Americans share a set of beliefs, values, and wants that provide an ideological cohesiveness to the totality of the unit called America. The other assumption is that the majority of Americans have had and continue to have the power to determine what happens both in the private sector of America (through the market forces) and in the public sector (through the representative public institutions). To these two assumptions Starr adds a third one: the dominant ideologies and positions become dominant through their powers of persuasion rather than through coercion and repression of alternative ideologies and positions. (Navarro, 1984:515)

Navarro emphasizes that Americans have been and continue to be “divided into classes, races, genders, and other power groupings, each with its own interests, set of beliefs, and wants that are in continuous conflict and struggle” (Navarro, 1984:515). These groups have different levels of power and interact within a dominant–dominated framework. In society in general and within medicine, powerful groups are decisive due to the resources they have acquired. They get their way, not because they successfully persuade, but because they coerce and repress the less powerful.

According to Navarro, the ascendancy of medical authority occurred (and the corporatization of medicine is now occurring) not because people willed it and not because they were persuaded it was in their interests, but because it served the interests of powerful societal groups (the government, those sufficiently wealthy to afford medical education and private health care, and the corporate sector). These groups determine what options are provided for society and ignore values and preferences (e.g., for universal coverage for health care) that they judge not to be in their interest.

## SUMMARY

The study of the history of medicine is important both to understand earlier peoples and events and to decipher ways in which modern ideas and practices have evolved. Understanding of disease shifted from supernatural explanations in early humans, to a slightly more empirical basis in Egyptian society, to natural causes in the Greco-Roman era. Hippocrates, the “Father of Medicine,” encouraged careful observation of sickness in patients, a close relationship between physician and patient, and ethical guidelines for physician behavior.

The centrality of religion’s role in medicine reemerged during the Medieval Era but ultimately became overshadowed by the scientific perspective during the Renaissance. Particularly important was Pasteur’s discovery of the germ theory of disease.

Diseases were common in colonial America; trained physicians were few; accurate medical knowledge was limited; and most families cared

for their own sick members. Physicians had little training, low prestige, and earned little money. The gradual implementation of the germ theory of disease led to other medical discoveries, much improved medical care, and widespread public health and disease prevention programs.

The AMA was established in 1847, though it did not become a powerful voice for medicine for several decades. The two key events in the institutionalization of the AMA were (1) the establishment of licensure requirements in states, thus controlling entry into the field, and (2) the federal government’s granting of authority to the AMA to control standards in medical education.

Paul Starr emphasizes that medical authority ascended in the United States because the medical profession persuaded people that such power was in their best interest. Vicente Navarro contends that the profession of medicine and the health care system has evolved in ways determined by powerful groups.

## HEALTH ON THE INTERNET

There are several informative sites about Hippocrates, his writings, and recent updates of his work. Read the Introductory Note, the Oath of Hippocrates, and the Law of Hippocrates at

[www.bartleby.com/38/1/](http://www.bartleby.com/38/1/).

Consider the following questions:

1. The final paragraph of the Introductory Note contains an aphorism about the art of the physician. What is the meaning of this statement? What does it say about the physician–patient relationship? Have you observed any occasions in which a physician seemed to be practicing this art?
2. Point five in the Law of Hippocrates includes the statement, “Those things that are sacred, are to be imparted only to sacred persons; and it is not lawful to impart them to the profane until they have been initiated into the mysteries of science.” What is meant by this statement?
3. In what ways is the Law of Hippocrates consistent with the Oath of Hippocrates, and in what ways does it differ?
4. There are now many contemporaneously written oaths to which physicians and other health care providers pledge. Search online, identify one alternative oath, and compare and contrast it to the Hippocratic Oath.

## DISCUSSION QUESTION

In his seminal work, *The Structure of Scientific Revolutions* (published in 1962), Thomas Kuhn describes the history of science as a series of eras each guided by a dominant

paradigm (i.e., a theoretical perspective or general understanding of things). This is “normal science,” and it is sustained through education and research apprenticeships whereby

young scientists are socialized into the prevailing paradigm.

Occasionally, new theoretical insights or empirical findings appear that question the dominant paradigm. If these “anomalies” are infrequent or isolated occurrences, consensus around the dominant paradigm will be undisturbed. However, if these contradictory perspectives persist and are replicated, a “scientific revolution” may occur wherein the old paradigm is replaced by a new one. Kuhn sees scientific

progress as occurring through revolutions rather than evolutions.

Based on your reading of this chapter and other familiarity you have with the history of medicine, would you say Kuhn’s view is or is not applicable to the advancement of medical knowledge? Has the progression of medical knowledge occurred incrementally in an evolutionary process? Or, have there been one or more revolutions in understanding disease and illness wherein new paradigms have become accepted?

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# CHAPTER 3

## *Social Epidemiology*

### Learning Objectives

- Define the term “social epidemiology,” and identify the major research techniques used by epidemiologists.
- Identify and describe the four major stages of the epidemiological transition. Discuss the changing presence of acute infectious diseases and chronic degenerative diseases during these stages.
- Explain the poor performance of the United States relative to other countries regarding life expectancy and infant mortality.
- Explain the manner in which social class, race, and gender influence life expectancy, infant mortality, and morbidity in the United States.
- Describe how the meaning of “disability” has changed in the United States in the last 20 years. Identify social factors that influence the likelihood of disability.

The field of social epidemiology focuses on understanding the causes and distribution of diseases and impairments within a population. Early in the history of the field, epidemiologists concentrated primarily on identifying microorganisms responsible for epidemics of acute infectious diseases. Utilizing the germ theory of disease (see Chapter 2), epidemiologists achieved much success in identifying the responsible agents. As populations became less susceptible to infectious diseases and less likely to die from them, chronic degenerative diseases such as coronary heart disease and cancer became more prominent.

Gradually, the focus of **epidemiology** broadened to address the importance of social characteristics (including gender, race, and social class), lifestyle, and the social and physical environment (including such things as employment status, stress, exposure to toxic substances, and participation in social networks) on disease and illness. This expanded focus on the influence of social and cultural factors on risk of death and disease is often referred to as **social epidemiology** and now represents a major thrust of many

(though not all) epidemiologists, whatever their disciplinary background (Friis, 2010).

### THE WORK OF THE EPIDEMIOLOGIST

The work of the epidemiologist has been compared to that of a detective or investigator. Epidemiologists scrutinize data on death and disease within societies, often searching for patterns or linkages within population subgroups (e.g., among men or women or among people living in cities or rural areas) or other meaningful changes over time. If a pattern or trend is discerned, the task of the epidemiologist is to explain it—that is, to identify a cause-and-effect relationship. This may require understanding how the disease is contracted, how it has been or could be spread, and why it is more common among some groups of people than others.

Increasingly, epidemiologists subscribe to a “web of causation” approach based on their belief that most disease patterns need to be explained by a complex of factors involving the disease agent, the human host, and the social





## IN COMPARATIVE FOCUS

### THE SWINE FLU PANDEMIC

On April 24, 2009, the World Health Organization announced that the United States and Mexico had reported a collective 27 confirmed cases of swine influenza A/H1N1. WHO acknowledged that these illnesses were of high concern because they were human cases associated with an animal influenza virus. WHO further commended the United States and Mexico for their proactive reporting and stated they would be collaborating to further characterize the outbreak.

Two days later, the United States went from having 9 confirmed cases in two states to having 20 confirmed cases in five states. In a second situational update, WHO acknowledged that these influenza cases were caused by a new subtype of influenza, H1N1, that was previously unidentified in swine or humans. By April 28, four days after the initial report, the United States had 64 confirmed cases of H1N1, Mexico had 26 confirmed cases with 7 related deaths, and the flu strain appeared in five other countries. Although WHO did not advise the restriction of regular travel or the closure of borders, it was considered sensible for ill persons to delay international travel and for people who had developed symptoms after international travel to seek medical attention.

The new influenza virus spread at a rapid rate. WHO noted that during previous pandemics, the influenza virus had taken more than six months to spread as widely as the H1N1 virus took to spread in less than six weeks. To further complicate matters, H1N1 has symptoms that are quite similar to the seasonal flu strain. Such symptoms include fever, cough, headache, muscle and joint pain, sore throat and a runny nose, and sometimes vomiting and diarrhea. While most people who contracted H1N1 experienced mild symptoms and recovered fully, swine flu produced unusual patterns of death and illness. Most of the deaths occurred in young, otherwise healthy adults. Additional populations who were at high risk for contracting H1N1 included pregnant women, infants and children under the age of 2, and people with chronic health problems

or compromised immune systems. It has been suggested that this influenza had such an effect on young people because they had no natural immunity, whereas members of the population 65 and older were not as affected as would be expected.

On June 11, 2009, WHO raised the level of pandemic alert from phase five to phase six (the highest level), indicating that a global pandemic was under way. They predicted that up to two billion people would be infected. At that time, 74 countries had reported laboratory-confirmed infections. Response in the United States was on a large scale. Massive prevention-oriented publicity campaigns were enacted, state and local governments communicated periodically to area residents, many colleges and universities developed plans, some schools and mass meetings were cancelled, and more than 80 million doses of the H1N1 vaccine were administered.

A year later, the pandemic had declined to a simmering level. In August of 2010, the World Health Organization announced that the pandemic was over. Eventually, 18,000 deaths in 213 countries were clinically confirmed, but experts agreed that almost 300,000 in total had died, and some estimated the number was closer to 600,000. Most of the deaths occurred in Southeast Asia and Africa. In the United States, about 60 million persons contracted H1N1, 265,000 were hospitalized, and 12,000 died.

As the pandemic threat subsided, the WHO and CDC attempted to analyze their response to the crisis. Critics charged that the threat was overblown and that the number of deaths was only about one-third of the annual toll from seasonal flu. Concerns were expressed that an insufficient number of vaccines were made readily available in the important beginning stages of the pandemic. While scrutiny of the response continues, it was clear that some states in the United States had a well-developed emergency preparedness plan, while others did not.

emerged within nations, **acute infectious diseases** [e.g., pneumonia and tuberculosis (TB)] began to spread more quickly and lingered longer. As societies further develop and modernize, morbidity and mortality change systematically to **chronic degenerative diseases** (e.g., heart disease and cancer). To capture this **epidemiological transition**, Omran (1971) divided the mortality experience of humankind into three stages: the Age of Pestilence and Famine, the Age of Receding Pandemics, and the Age of Degenerative and Human-made Diseases.

The Age of Pestilence and Famine existed throughout the world for thousands of years and still exists in many of the world's developing countries. Factors including lack of proper nutrition, poor sanitation, and unclean drinking water lead to continuing epidemics of infectious and parasitic diseases such as influenza, pneumonia, diarrhea, smallpox, and TB.

Infants, children, and women of reproductive age were at particularly high risk during this era and are even now often the victims of nutrition-related diseases. Infant mortality rates (IMRs) remain very high today in many developing countries in which more than one baby in every ten dies in the first year of life. Moreover, adult health in developing countries is a serious and continuing problem. Data reveal that in industrialized market-based economies, the risk of death between the ages of 15 and 60 is 12 percent for males and 5 percent for females. The corresponding figures in sub-Saharan Africa, a developing area, are 38 percent for males and 32 percent for females. Historically, life expectancy during the Age of Pestilence and Famine was between 20 and 40 years, though life expectancy in most of the world's developing countries today exceeds that. In several African countries, however, life expectancy remains less than 55 years.

In the late 1800s and early 1900s, industrialization and urbanization led to increase in societal wealth. Significant improvements occurred in sanitation (e.g., cleaner water supplies and more effective sewage systems) and standard of living (especially in the availability of nutritious food). Advances in medical knowledge and public

health swept over countries. These changes led to the Age of Receding Pandemics—a transition stage—in which risk of death from infectious and parasitic diseases declined and risk of degenerative diseases increased. People began to survive into older age, and, as they did so, became more likely to experience and die from heart disease, cancer, and other chronic degenerative diseases. Historically, during this stage, life expectancy was about 50 years.

The Age of Degenerative and Human-made Diseases arrived in the mid-1900s with the stabilization of death from acute infectious diseases at a relatively low level and with mortality from degenerative diseases significantly increasing and becoming the most common causes of death. During this third stage, mortality rates dropped considerably from earlier times, and life expectancy reached approximately 70 years or more.

At one time, it was generally believed that the decline in mortality experienced during the third period put life expectancy at about its biological limit. However, in the mid-1960s, an unexpected and rapid decline in deaths from major degenerative diseases occurred. These declines first affected middle-aged people, but eventually the lives of older people were also extended.

Thus, modern societies entered a fourth period of epidemiological history—the Age of Delayed Degenerative Diseases—in the mid-1960s. During this era, the risk of dying from chronic degenerative diseases continues but is pushed back to older ages. Both reduction in behavioral risk factors (e.g., a decline in cigarette smoking and improvements in blood pressure control) and advances in medical technology were responsible for this shift (Olshansky and Ault, 1986).

Recently, Gaziano (2010) has proposed that a fifth epidemiological stage—the Age of Obesity and Inactivity—is now under way and has been for the last few decades. He suggests that the progress made in postponing disease and mortality to later stages of life is beginning to be undermined by an epidemic of obesity. Data show that more than two-thirds of American adults are overweight, and one-third meet the definition of being obese. Almost three-fourths

of American adult males are overweight (Flegal et al., 2010). If not addressed, this excess weight will lead to increased risk of coronary heart disease, stroke, hypertension, diabetes, cancer, joint disease, sleep apnea, asthma, and other chronic conditions.

The Age of Delayed Degenerative Diseases and the Age of Obesity and Inactivity raise new questions about the health of the population. Will the prolonging of life continue? If so, will that result in additional years of health or additional years of disability? Will healthier lifestyles and the postponement of chronic disease retard the aging process? Will death increase

from other diseases? Will there be continued outbreaks of epidemic disease (e.g., AIDS and the recent increases in rates of TB)? The box “Disease Epidemics of the Future?” illustrates this possibility.

One thing is certain: Unless the Age of Obesity and Inactivity dramatically reverses recent improvements in life expectancy, all segments of the elderly population are expected to increase in absolute numbers. The CDC has projected that the U.S. population aged 65 and over will increase to 71.0 million in 2030 (having been only 16.7 million in 1960 and 35.0 million in 2000).



## IN THE FIELD

### *DISEASE EPIDEMICS OF THE FUTURE?*

In May 1995, a 36-year-old man was admitted to the hospital in Kikwit, Zaire, with a fever and diarrhea. Soon, however, blood began seeping out of every orifice of his body, and his internal organs became liquefied. He died on the fourth day, the same day that a nun and a nurse who had cared for him became ill. Others on the hospital staff became sick. Epidemiological experts in lethal viruses (who were referred to by one author as “disease cowboys”) stationed at the World Health Organization collected their equipment and materials and immediately flew to Kikwit. They gathered samples and dispatched them to the Centers for Disease Control and Prevention. Their verdict, as feared, Ebola virus.

Ebola first surfaced in 1976 in Zaire and the Sudan. It is not known where it resides in nature, how epidemics get started, or why they do not occur more frequently. It is known that the virus is spread through bodily secretions and that the fatality rate is between 50 percent and 90 percent. There is no vaccine and no treatment. Ebola was contained in this episode within a couple of weeks, but only after it had killed 228 of 289 victims.

Is Ebola outbreak a rare and unduplicated experience? No. In the last couple of decades, more than 20 fearsome viruses have surfaced

around the world including HIV (which had caused more than 35 million deaths in the world by 2010) and Lassa (which affects between 300,000 and 500,000 annually in West Africa). Many observers believe that these outbreaks are due to the unceasing devastation of the ecosystem—including destruction of the ozone layer and the rain forest and the continual accumulation of chemicals in the environment—which has opened these viruses to the human host (Lappe, 1994). In 1989, a strain of Ebola virus was transmitted to a laboratory in Reston, Virginia (the subject of Richard Preston’s *The Hot Zone* and Laurie Garrett’s *The Coming Plague*). Some researchers there developed antibodies to the virus, though none developed symptoms. What may be new strains of Ebola are currently thought to be simmering in dense African jungles (Thacker, 2003).

On the other hand, perhaps the alarm that these killer viruses have created in many people in modern nations should also be of sociological interest. During the same time period that Ebola was claiming its 200-plus victims in Kikwit, hundreds of thousands of children in developing countries were dying from drinking impure water—a far less exotic, but far more serious, threat to the health and lives of people in Zaire and other developing countries.

## Recent Alarming Increases in Infectious Diseases

In the last several years, epidemiologists have discovered a pattern that could be tremendously disruptive to the epidemiological transition: Several infectious diseases, including TB, syphilis, gonorrhea, and bacterial pneumonia, are becoming increasingly resistant to the antibiotics that have been successful in defeating them. Malaria (spread by a parasite) was all but eradicated in the world in 1965; today, it infects more than 200 million people annually and kills more than 600,000. Diphtheria (a bacterium-caused upper respiratory illness) is very rare in the United States but affects up to 200,000 Russians each year. Approximately 2 billion people worldwide are infected with TB (a bacterium-caused disease usually in the lungs), 9 million people annually develop active TB, and about 1.4 million people die from it. Once almost conquered in the United States, it has now reemerged with about 10,000 cases per year.

Several patterns related to infectious disease are evident. First, they represent a global problem. About one-third of all deaths in the world today are attributable to infectious disease—the single biggest killer. Second, these diseases are becoming an increasing threat in the United States. Combined, they now represent the third leading cause of death in the United States, and the mortality rate from infectious disease has jumped in the last 20 years. Third, many of the once-successful antibiotics for these diseases are no longer effective. Some infectious diseases have become resistant to traditional drugs, and more will become so. For example, the WHO estimated that 440,000 people in the world had multidrug-resistant TB (i.e., neither of the two most effective drugs against TB could defeat the virus) in 2008 and that a third of them died (World Health Organization, 2010b). Methicillin-resistant staphylococcus aureus (commonly known as MRSA) has long been a problem in hospitals and number of patients contracting it spiked in the 1990s (when more than 125,000 people in the United States were hospitalized each year with it). Recent studies show that the incidence of MRSA in hospitals

has now significantly decreased. And, finally, the response to infectious disease must be at the worldwide level. Yet, both the CDC and the WHO are on record that the state of preparedness for outbreaks of disease epidemics is inadequate. Efforts are now underway to learn as much as possible from situations (such as with regard to SARS—described in the accompanying box, “Has SARS Been Vanquished?”) in which public health efforts were largely successful.

This chapter offers an introduction to several key concepts and measurement techniques in epidemiology—life expectancy, mortality, infant mortality, maternal mortality, morbidity, and disability—and examines current rates and trends within the United States and the world.

## LIFE EXPECTANCY AND MORTALITY

### Life Expectancy

Using both current mortality data and projections, **life expectancy** rates reflect the average number of years that a person born in a given year can expect to live. The average life expectancy throughout the world is about 70 years, but this statistic camouflages significant variation. Life expectancy is about 78 years in modern countries (with some now above 80 years), but only about 67 years in developing countries (with some still in the 40s). Life expectancy has increased significantly in most countries in the last 20 years, especially in several large developing countries such as China and India.

Despite spending significantly more money on health care than any other country, the United States fares poorly in relation to others. Among countries with at least five million persons, the United States rates only 24th highest in life expectancy, and among all countries, it is 51st. About two-thirds of the gap between the United States and others is explained by Americans' higher likelihood of dying before age 50—a pattern that is traceable to factors such as a higher rate of unintentional injuries (including drug overdose), a higher rate of noncommunicable diseases, more perinatal problems (including pregnancy complications and birth trauma), and a higher rate of homicide



## IN THE FIELD

### HAS SARS BEEN VANQUISHED?

The first new infectious disease of the twenty-first century was SARS—sudden acute respiratory syndrome. SARS apparently originated in rural China in late 2002 and was first reported in February, 2003. The disease was soon spread by international travelers to Europe, North America, and throughout Asia. As the world recognized that SARS was often fatal, considerable panic occurred, especially in areas like Singapore, Hong Kong, and Toronto where the biggest outbreaks occurred. In these cities, some schools closed, entire families were quarantined, people wore surgical masks to reduce the likelihood of contracting the disease, some hospitals closed, and some students studying abroad were brought home. Some experts postulated that SARS could become an uncontrollable pandemic. However, by July, the first emergence of SARS had been all but vanquished. More than 8,000 contracted the disease, and 10 percent of them died from it.

How was control of SARS achieved? Success stemmed from a worldwide collaborative effort of epidemiologists and public health experts, who were led by the World Health

Organization and the CDC. They quickly identified the source of the disease as being a particular virus. They determined that people who died were either attacked by a more virulent strain or already had weak immune systems. They discovered that the virus originally latched onto animals and genes in the virus mutated, enabling it to then latch onto human tissue. Efforts were enacted to control the virus within hospitals, learn how to best treat patients, do laboratory studies, discourage travel to cities with the most occurrences, and quarantine patients. Most agree that SARS could have become a tragic worldwide cause of death.

What was learned from SARS? That the world is one place and that all areas are affected by what is happening elsewhere; that more effective public health measures are needed around the world; that traditional infectious disease control programs can have success (Henley, 2003); and that infectious diseases are powerful and very difficult to eliminate altogether as was proven when some cases of SARS reemerged in China in 2004. However, there have been no SARS cases reported in the world since 2004.

(Ho, 2013). The rate of firearm homicides is 19.5 times higher in the United States than in other countries. Table 3–1 identifies estimated life expectancy in the year 2013 for some of the world's countries with more than 5 million persons.

**Trends.** Since 1900, life expectancy in the United States has increased more than 30 years from 47 to 78.6 (in 2012). This does not mean that a significant increase has occurred in the life span (the maximum biological age). In the early part of the century, death for males and females often occurred in the first year of life and often during childbirth in females. These deaths significantly reduced average life expectancy. Males and females who survived these stages

could expect to live on average almost as long as males and females do today.

Greater life expectancy together with a lower fertility rate (i.e., the rate of reproduction of women in their most fertile years—ages 15 to 44) has resulted in a larger proportion of the United States population being over 65 years of age. Just 4 percent of the population was 65 or older in 1900; today, it is 13 percent, and persons 65 and older are the fastest increasing segment of the population.

This “aging” of the American population has many implications. The greater number of elderly persons will require significant increases in the supply of primary and specialty health care, short-term hospitalization, and extended

**TABLE 3-1** Life Expectancy in the Year 2013 (Estimates) in Countries with 5+ Million Persons

Country	Life Expectancy in 2013
Japan	84.2
Singapore	84.1
Switzerland	82.3
Hong Kong	82.2
Australia	82.0
Italy	82.0
Canada	81.6
France	81.6
Spain	81.4
Sweden	81.3
Israel	81.2
Netherlands	81.0
Germany	80.3
Jordan	80.3
United Kingdom	80.3
Greece	80.2
Austria	80.0
Belgium	79.8
Taiwan	79.7
Finland	79.6
South Korea	79.6
Denmark	78.9
Portugal	78.9
United States	78.6 (24th) (51st among all countries)
<b>Lowest 10</b>	
Chad	49.1
South Africa	49.5
Afghanistan	50.1
Central African Republic	50.9
Zambia	51.5
Mozambique	52.3
Malawi	52.8
Zimbabwe	53.9
Uganda	54.0
Mali	54.6

Source: Central Intelligence Agency "Life Expectancy at Birth," *The World Factbook*, <https://www.cia.gov/library/publications>, 2013b.

care. Their number will also provide a formidable voting bloc and lobbying force to ensure that their needs will not be overlooked. Because extended care can be very expensive, increasing numbers of the elderly may need to reside with their adult children, thus requiring a family



Life expectancy in the United States now exceeds 78 years, and an increasing percentage of the population is 65 years of age or older.

member to take on a full-time caregiving role, or necessitating the use of home health care services. Many elderly persons and their families will be faced with having to determine the relative value of quality versus quantity of life and the extent to which high-technology medicine will be employed (Sade, 2012).

### Mortality

**Mortality** refers to the number of deaths in a population. While death itself is easy to document, determining the actual cause can be problematic because death may result from a combination of many factors. In the United States, an attempt is made to classify each death according to the *International Statistical Classification of Diseases, Injuries, and Causes*

of *Death*, which consists of a detailed list of categories of diseases and injuries. While this system is valuable, it is not totally reliable due to the problems in diagnosing the actual underlying cause of death—something that is especially difficult for some chronic diseases.

**Measurement.** Mortality rates are reported in ratios such as the **crude death rate (CDR)**. To calculate the CDR, the number of deaths in a designated population during a given year is divided by the population size. This figure is then multiplied by a standard number (usually 1,000 or 100,000). The formula for CDR is

$$\frac{\text{Total number of deaths in specified population in a given year}}{\text{Total population of the group at mid-year}} \times 100,000$$

In 2012, the CDR for the United States was 8.4 per 1,000 population, though this rate varies considerably among age groups, among racial and ethnic groups, and between males and females. A more useful measure for sociologists who are interested in the effects of specific social characteristics on death within a population is an “age-specific” or other “characteristic-specific” rate. To determine the death rate for a particular group, a specific rate (SR) is calculated by confining the number of deaths and the population size to that given segment of the population. Examination of these statistics reveals that throughout the life course, males have a higher death rate than females, African Americans have a higher death rate than whites, and one of the largest discrepancies by age, sex, and race is a very disproportionately high rate for black males between the ages of 15 and 24.

**Trends.** The crude death rate in the United States has declined by almost 50 percent since 1900 and continues to drop slowly. The largest reduction has been for females, both black and white, while the least reduction has been for black males. In addition, the major causes of death have changed substantially. Today, death is much more likely than ever before to result

from a chronic degenerative disease. Almost three-fourths of deaths in the United States are due to heart disease, cancer, stroke, diabetes, lung disease, and cirrhosis, while in 1900, the major killers were infectious diseases such as influenza and pneumonia, gastrointestinal diseases, and TB. To an increasing extent, people are now dying of multiple system diseases—being afflicted with more than one fatal disease (see Table 3–2).

### Sociodemographic Variations in Life Expectancy

**Social Class.** The upper class has a distinct advantage over the less affluent with regard to life expectancy. On average, people with low incomes live approximately 7 years less than the more affluent. Level of education and occupational status—two components of socioeconomic status (SES)—have been found to be among the most important predictors of health. Higher levels of education and occupational status are associated with less overall stress, healthier and safer living and working environments, and a more nutritious diet. The more affluent use more preventive health services and are less likely to delay seeking care when sick (Hertz, Hebert, and Landon, 1994).

**TABLE 3–2** The Ten Leading Causes of Death in the United States, 1900 and 2011

1900	2011
1. Influenza and pneumonia	Heart disease (598,000)
2. Tuberculosis	Cancer (575,000)
3. Gastroenteritis	Lung disease (138,000)
4. Heart disease	Stroke (129,000)
5. Cerebral hemorrhage	Accidents (121,000)
6. Kidney disease	Alzheimer's disease (83,000)
7. Accidents	Diabetes (69,000)
8. Cancer	Kidney disease (50,000)
9. Certain diseases of infancy	Influenza and pneumonia (50,000)
10. Diphtheria	Suicide (38,000)

Source: Centers for Disease Control and Prevention. 2013 *Leading Causes of Death*. [www.cdc.gov/nchs](http://www.cdc.gov/nchs).

**TABLE 3–3** Life Expectancy by Race, Sex, and Age, 2010

Average Years of Life Remaining	Expectation of Life in Years				
	Total	White		Black	
		Male	Female	Male	Female
At birth	78.7	76.5	81.3	71.8	78.0

Source: National Center for Health Statistics. 2011 *National Vital Statistics Report*. [www.cdc.gov/nchs](http://www.cdc.gov/nchs).

**Race and Ethnicity.** In the United States, whites have a much longer life expectancy than most racial and ethnic minority groups. Life expectancy for African Americans lagged behind that for the total population throughout the twentieth century, but since 1990, the gap has decreased. However, in 2010, whites still lived an average of 5 years longer than blacks (see Table 3–3). The leading causes of death for blacks are the same as for whites (heart disease, cancer, lung diseases, and stroke), although blacks die from these diseases at an earlier age.

See the box “What Explains the Continuing Racial Differences in Mortality?” for a further examination of this issue.

Hispanics now are the largest racial/ethnic minority group in the United States, comprising more than 16 percent of the population. Though Hispanics (a broad term covering several groups with important differences) are more likely than non-Hispanic whites to be below the poverty level and less likely to have health insurance, they have a lower death rate. This is a product of having lower death rates from heart disease, cancer, accidents, and suicide. Efforts are under way to explain the lower death rates from heart disease and cancer, but they may be due to dietary factors or the strong family life and support networks found in many Hispanic families.



### IN THE FIELD

#### WHAT EXPLAINS THE CONTINUING RACIAL DIFFERENCES IN MORTALITY?

Continuing racial differences in mortality and life expectancy represent an obvious and critical social disparity in the United States. In 2012, whites in the United States averaged more than five years longer life expectancy than blacks. Examining mortality ratios that were standardized by age and sex (SMR), Satcher et al. (2005) found that the black–white differential changed very little between 1960 and 2000. The ratio did improve for African American women but actually worsened for infants and African American men age 35 and older. Using 2002 data, they estimated that almost 85,000 deaths per year could be eliminated if the black–white mortality gap could be eliminated. *Healthy People 2020*, a document published by the United States Department of Health and

Human Services, identified the goals of achieving health equity, eliminating disparities, and improving the health of all groups as key during the 2010s (United States Department of Health and Human Services, 2010).

What causes this mortality disparity? Extensive research has pointed to a variety of both macro-level factors (social class differences, racial residential segregation, and historical and continuing racial discrimination) that structure and limit personal resources (education, occupation, income, and health insurance) and micro-level social and individual lifestyle factors (stress exposure, diet, exercise, and lack of medical care) (Sudano and Baker, 2006).

The link between some of these factors and mortality may be more apparent than it is for

others, but research has documented all these factors as influences. For example, how does racial residential segregation impact mortality? As Williams and Jackson (2005) explain, due to residential segregation, blacks often live in poorer neighborhoods than do whites of similar income. Neighborhood affects educational and employment opportunities, which influence income and access to health insurance. High unemployment rates and low wages are associated with higher rates of out-of-wedlock births and single-parent households, which are in turn related to lower levels of supervision and elevated rates of violent behavior. Poorer neighborhoods are more often exposed to environmental toxins. Perception of neighborhood safety relates to the ability to get adequate physical exercise. Both the tobacco and alcohol industries often target their products to poorer neighborhoods. Thus, the neighborhood in which one lives is associated with a wide variety of factors that ultimately influence mortality rate.

One study determined that approximately 38 percent of the racial mortality differential is due to income differences (blacks are three times more likely than whites to be below the poverty level); about 31 percent is due to blacks having more high-risk factors such as cigarette smoking and generally higher incidences of hypertension, high cholesterol levels, and diabetes; and the remaining 31 percent is due to less access to health services and differences in social and physical environment (Otten et al., 1990). In a study that also included Hispanics, Sudano and Baker identified education, income, and net worth as being more influential than lifestyle and health insurance.

In 2003, the Institute of Medicine published *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (Smedley, Stith, and Nelson, 2003)—a book based on thorough investigation of research on black–white health differentials. While acknowledging the important influences described above, the book focused attention on what health care providers and health care systems could do to reduce or eliminate the disparity. Part of their analysis examines racial differences in health care services even after socioeconomic differences are controlled. They highlight several studies that show that differences between blacks and whites in treatment for heart disease are not explained by severity of disease or by other clinical factors, and that these treatment differences lead to higher mortality for black patients. Other studies have documented racial differences in the use of diagnostic tests, in the provision of cancer treatment, and in drug therapy for AIDS patients.

A key part of *Unequal Treatment* is recommendations for what can be done at both the macro and micro levels to address these disparities. For example, it is recommended that all health care providers be made aware that these inequities exist despite what may be the best intentions of individual health care providers. To enhance ability and skill in working with patients from diverse backgrounds, all future providers should undergo some cross-cultural education that focuses on (1) *attitudes* (cultural sensitivity and awareness), (2) *knowledge* (of cultural groups), and (3) *skills* (in working with patients of a different cultural background).

Asian and Pacific Islanders, another strikingly diverse population, represent more than 4 percent of the population. Included among this group are some well-established Asian American populations (Japanese, Chinese, and Filipinos) and many recent immigrants and refugees from Southeast Asia. As a whole, leading causes of death mirror those of other population groups, but, with the exception of very recent immigrant groups, rates are lower. The clearest

differences are with respect to heart disease, cancer, and suicide.

**Social Class and Race.** While some life expectancy and mortality differentials may have a genetic basis (e.g., sickle cell anemia, diabetes, and hypertension in blacks), socioenvironmental factors play a much larger role, and most of these factors are related to higher rates of poverty among minorities. Poverty reduces life expectancy by

increasing the chances of infant mortality, acute and chronic diseases, and traumatic death.

Among others, Navarro (1991) has argued that the traditional debate as to whether race or class has more impact misses the most important point—that both race and class impact mortality. However, in examining data from a 1986 mortality survey, Navarro found that class differentials in mortality (for heart disease and stroke) were larger than race differentials.

The relatively greater impact of class was also discovered in analyses of data from the Charleston (South Carolina) Heart Study. This study focused on a random sample of black and white men who were 35 years of age or older when recruited into the Heart Study in 1960. Education level and occupational status of the subjects were collected so that mortality rates over the 28-year period to 1988 could be analyzed. Researchers reported that in no instance were black–white differences in all-cause or coronary disease mortality rates significantly different when SES was controlled. In this study, class was the more powerful predictor of mortality; when class was controlled, the effects of race decreased (Keil et al., 1992).

**Gender.** Females have a longer life expectancy than males. At birth, female infants can expect to live about 80 years compared to just 75 years for male infants. Within racial groups, white female infants are expected to live about 5 years longer than their white male counterparts and black females about 7 years longer than black male infants. Mortality rates for all four leading causes of death in the United States, heart disease, cancer, lung disease, and stroke are higher for men than for women.

Females have a biological advantage over males from the beginning of life, as demonstrated by lower mortality rates at both the prenatal and neonatal (i.e., first 28 days) stages of life. However, the sizable gap in expected years of life between men and women is traceable to an interrelationship among several biological and sociocultural influences. A discussion of these factors is provided in the box “Why Do Women Live Longer Than Men?”

## INFANT MORTALITY

### Measurement

Approximately 125 million babies are born alive in the world each year. About 4 million of them die in the first year of life (1 million babies die on the day they are born). More than 90 percent of these deaths occur in the developing world.

**Infant mortality** is defined as the number of infant deaths for every 1,000 babies born. The formula for the **infant mortality rate** is:

$$\frac{\text{Total number of deaths in specified population of persons under age 1 in a given year}}{\text{Total number of live births during the year}} \times 1,000$$

Epidemiologists divide infant mortality rate into two components: the **neonatal mortality rate** (deaths among infants in the first 28 days of life) and the **postneonatal mortality rate** (deaths between 29 days and 1 year of life). While infant mortality rates are sometimes used as an indicator of the quality of health care within a country, the postneonatal mortality rate is actually a better indicator for two reasons. First, deaths in the first 28 days of life are often a direct consequence of genetic problems or difficulties in the birthing process. Second, using the neonatal rate to assess quality of delivery of care creates an illogical situation. The better health care technology gets at sustaining an early life, but one that it cannot sustain over the long term; the higher the neonatal mortality rate and the lower the evaluation of the health care system (i.e., babies who die during birth are not counted in infant mortality rates; babies who are sustained and given a chance at life but die in the first 28 days are counted). The postneonatal mortality rate is a better reflection of babies who die due to socioenvironmental conditions.

### Trends

The infant mortality rate in the United States has steadily declined since the early 1900s. Between 1950 and 2012, the mortality rate for infants dropped from 29.2/1,000 live births to a rate of



Hospital neonatal intensive care units provide specialized intensive care for sick and premature newborns. Despite their prevalence in the United States, the U.S. infant mortality rate lags behind that of most modern countries.

6.0 (about 25,000 babies per year). The long-term improvement is a result of factors such as improved socioeconomic status, better housing and nutrition, clean water, and pasteurized milk. Medical discoveries such as antibiotics and immunizations, better prenatal care and delivery, and technological breakthroughs in infant care (such as neonatal intensive care and new surgical techniques) have also been important.

Despite this decrease in the infant mortality rate, the United States ranks far below most nations of comparable (or even lesser) resources (see Table 3–4). In recent years, most of these countries have experienced a more rapid reduction in the rate of infant deaths than the United States.

Some researchers have asked if there are differences among countries in the method by which infant mortality is counted, and, if so, whether this differential reporting contributes to the relatively higher IMR in the United States. The answer to the first part of this question is yes—some countries use a variation in the IMR formula and this variation contributes to a modest reduction in the rate of infant deaths. Most countries—including the United States—consider all babies born in calculating IMR. Some other countries—for example, Ireland and Poland consider only babies born of at least 500 g. Thus, the smallest and most vulnerable babies—those most likely to die—are excluded.

This has the consequence of lowering their IMR. France and the Netherlands count only babies of at least 500 g or of at least 22 weeks' gestation.

However, in response to the second part of the question, researchers have calculated the magnitude of the difference made in the IMR by the formula variations and have discovered that they have a very small overall effect. Given that most countries use the same formula as the United States, and given the small number of babies excluded from being counted in the other countries relative to the number of births counted, there is validity in comparing countries internationally. While there might be some modest movement in the ranking for any given country upward or downward, there should be considerable consistency. In all calculations, the United States has a high relative IMR (Heisler, 2012).

### Causes

By far, the single most hazardous condition for infants is low birth weight. About 8 percent of all live births are considered to be low birth weight (less than 2,500 g—about 5-<sup>1</sup>/<sub>2</sub> pounds); about 1 percent of all births are very low birth weight (less than 1,500 g). Low birth weight is the primary determinant of approximately 75 percent of all deaths in the first month and 60 percent of all infant deaths. Low-weight

**TABLE 3-4 Infant Mortality Rates in 2012 (Estimates) in Countries with 5+ Million Persons**

Country	Number of Deaths Under 1 year/1,000 Live Births
Japan	2.2
Singapore	2.7
Sweden	2.7
Hong Kong	2.9
Italy	3.4
Spain	3.4
France	3.4
Finland	3.4
Germany	3.5
Czech Republic	3.7
Netherlands	3.7
Switzerland	4.0
Israel	4.1
South Korea	4.1
Denmark	4.2
Austria	4.3
Belgium	4.3
Australia	4.6
United Kingdom	4.6
Portugal	4.6
Cuba	4.8
Canada	4.9
Greece	4.9
Taiwan	5.1
Hungary	5.2
United States	6.0 (26th) (49th among all countries)
<b>Highest 10</b>	
Afghanistan	121.6
Niger	110.0
Mali	110.0
Central African Republic	97.2
Chad	93.6
Angola	83.5
Malawi	79.0
Mozambique	76.9
Sierra Leone	76.6
Ethiopia	75.3

Source: Central Intelligence Agency, "Infant Mortality," *The World Factbook*, <https://www.cia.gov/library/publications>, 2012a.

babies are also at risk of congenital anomalies such as malformations of the brain and spine, heart defects, and long-term disabilities such as cerebral palsy, autism, mental retardation, and vision and hearing impairments.

What factors increase the likelihood of a baby being low birth weight? At a micro level, low

birth weight has been linked to the age of the mother (younger females have a more difficult time sustaining a healthy pregnancy), maternal smoking and use of alcohol or other drugs, and inadequate prenatal care. About two-thirds of low-birth-weight babies are born prematurely. Estimates are that half of the infant deaths due to low birth weight would be preventable with adequate prenatal care (most women at risk for delivering a low-birth-weight baby can be identified at an initial visit and monitored for factors such as inadequate nutrition, substance use, hypertension, urinary tract infections, and other potential risks to the fetus). Many European countries attribute their lower infant mortality rate to the provision of adequate prenatal care to all women, yet up to one-third of pregnant women in the United States fail to get adequate prenatal care.

At a macro level, several social structural (social, economic, and political) factors directly impinge on the infant mortality rate. A strong relationship exists between economic status and all the micro factors that increase the likelihood of a low-birth-weight baby. Poor women experience more health problems during pregnancy and are much less likely to receive adequate (if any) prenatal care. One recent study of state infant mortality levels compared the influence of social structural factors (such as percentage of persons in poverty, percentage of blacks and Hispanics in the population, amount of residential segregation, and political voting patterns) and health services variables (such as number of physicians relative to population and proportion of state expenditures on health care). The researchers found that the social structural factors were much more strongly related to the rate of infant mortality (Bird and Bauman, 1995). Despite the appeal of focusing only on individual-level explanatory factors, it is very important to consider the influence of social structural factors as determinants of infant mortality.

### Variations by Race and Social Class

The overall infant mortality rate masks a significant discrepancy that exists between white and



## IN THE FIELD

### WHY DO WOMEN LIVE LONGER THAN MEN?

In the United States, women live approximately 5 years longer than men. Is this an inescapable sex-based feature? No. In the early part of the twentieth century, there was little difference in life expectancy between men and women, and by 1920, women lived only about 2 years longer than men. Although women live longer than men in all industrialized countries, in some agriculturally based societies, men live longer than women. These patterns reflect the importance of social and cultural influences—not genetic determination. Systematic analyses of sex differentials in mortality point to two primary reasons: (1) differences in health-related behaviors and circumstances, and (2) differences in the manner in which health services are used.

In the United States, women are more likely to experience acute illnesses such as upper respiratory infections and gastroenteritis and have higher rates of certain chronic debilitating (but usually not life-threatening) conditions such as anemia, thyroid conditions, colitis, and arthritis. Men are more likely to have life-threatening chronic conditions such as cancer, stroke, and liver disease (Bird and Rieker, 2008).

This pattern can be traced to behavioral differences. Over most of the age span, males are more likely than females to die of cancer. This is traced to greater likelihood of cigarette smoking, men's greater propensity to drink

alcohol excessively, and men being more likely to be exposed to cancer-causing agents in the workplace. Sex differences in reproductive anatomy and effects of sex hormones also play a role and help explain the greater likelihood of women dying from certain types of cancer, such as breast cancer.

Men are more likely to die in automobile accidents (studies show men drive more miles but also drive faster, less cautiously, and violate more traffic regulations), die in on-the-job accidents, and commit suicide and be a victim of homicide. Whether or not male sex hormones create a predisposition to more aggressive behavior, socialization experiences relative to alcohol consumption, use of guns, physical risk taking, and assumption of risky jobs sets the pattern (Stillion and McDowell, 2001–2002).

In addition, women are more likely than men to seek medical care. Women perceive more symptoms, take them more seriously, and are more willing to see a physician about them. They are more likely to have a regular source of medical care, use more preventive care, see physicians more often, be prescribed medications, and be hospitalized (Bird and Rieker, 2008). Often, men would benefit from earlier and increased medical attention as a means of earlier diagnosis and intervention into diseases that become life threatening.

black infants and between babies born into poor and more affluent homes. The infant mortality rate is 1 to 1½ times higher in families below the poverty level, and black babies are more than twice as likely as white babies to be of low birth weight and die before the age of 1. This relates to general maternal health and a higher likelihood of contracting disease during pregnancy, a much greater propensity for childbearing while still in the teenage years, and being less likely to receive adequate prenatal care. Schoendorf and his associates tie the greater likelihood of

low-birth-weight babies to the elevated risk of prematurity due to

poor maternal health prior to pregnancy, increased physiologic risks associated with psychosocial risks, poor health habits during pregnancy, insufficient access to health care services, substandard health care (from physicians or other health care personnel), or standard medical care that does not adequately address the needs of pregnant black women. (1992:1525)

Several excellent studies have emphasized the importance of social structural factors as

**TABLE 3–5 Infant Deaths per 1,000 Live Births by Race of Mother, United States, 2005**

Race/Ethnic Origin	Percent
Cuban	4.4
Central/South American	4.7
Asian/Pacific Islander	4.9
Mexican	5.5
White	5.8
Overall	6.9
American Indian/Alaskan Native	8.1
Puerto Rican	8.3
Black	13.6

Source: National Center for Health Statistics, *Health, United States, 2009* (Hyattsville, MD: United States Department of Health and Human Services 2010).

explanations for the differences in black and white infant mortality rates. LaVeist (1993) has documented the effects of poverty (the fact that blacks are more likely to be below the poverty level); racial segregation (segregated black, urban communities being more likely to be toxic environments lacking in city services and medical services and having an inflated cost of living); and political empowerment (the black infant mortality rate is lower in cities with greater black political power, perhaps due to reduced feelings of hopelessness and greater availability and inclination to use appropriate health services). Table 3–5 shows the relationship between infant mortality and race/ethnic background of the mother.

## MATERNAL MORTALITY

Every day in the world, up to 1,000 women die from pregnancy- or childbirth-related complications. That adds up to more than 300,000 maternal deaths each year. More than 90 percent of these deaths occur in the developing world. Although this number is very large, it actually declined by about 50 percent from 1990 to 2010. The **maternal mortality rate** is defined as the number of women who die in the process of giving birth for every 100,000 live births. The rate is about 16 per 100,000 live births in developed countries, but

240 per 100,000 live births in developing countries. The risk of a woman in a developing country dying from a pregnancy- or birth-related cause during her lifetime is about 36 times higher than for a woman in a developed country.

The four major causes of maternal death are as follows: severe bleeding (mostly occurring after birth), infections (mostly also occurring postbirth), eclampsia or elevated blood pressure during pregnancy, and unsafe abortions. Complications from unsafe abortions cause 13 percent of maternal deaths. Many maternal deaths could be eliminated with adequate family planning and prenatal care services, and clean, safe surgical procedures attended by a skilled health worker (World Health Organization, 2010a). However, it is also essential that pregnant women in whom complications develop have access to emergency obstetrical care. This entails upgrading rural health centers and referral hospitals and ensuring that they have necessary drugs, supplies, and equipment, such as magnesium sulfate for eclampsia, antibiotics for infection, and basic surgical equipment for cesarean sections (Rosenfield, Min, and Freedman, 2007).

An effort is also under way to ensure that all pregnant women have a skilled attendant at delivery—an accredited health care professional (e.g., a doctor, midwife, and nurse) who can conduct normal deliveries, identify and manage complications, and refer women to the next level of care. To be effective, skilled attendants must have access to drugs and equipment and must be backed by an infrastructure that includes referral systems and good-quality health facilities. The accompanying box, “Mortality Patterns in Developing Countries,” discusses some further explanations for the higher mortality rates in those countries.

The maternal mortality rate in the United States is about 10 per 100,000. That translates into two or three women dying each day from complications related to pregnancy or delivery. Significant variations in this rate continue among population subgroups: Black women are four times more likely than white women to die, and unmarried women have nearly three times



## IN COMPARATIVE FOCUS

### MORTALITY PATTERNS IN DEVELOPING COUNTRIES

Worldwide, life expectancy increased more in the twentieth century and the first part of the twenty-first century than in all prior human history, and the biggest increases have been in the most recent years. Average life expectancy in the world increased from just 48 in 1955 to 66 at the turn of the century to 70 in 2013 and is expected to increase to about 73 by the year 2025.

These data, of course, camouflage continuing disparities between the world's wealthiest and poorest nations. In 1996, 76 percent of the deaths reported in Africa were people younger than 50; the corresponding figure in Europe was just 15 percent. By 2025, the percentage in Africa is predicted to diminish to 57 percent while the figure for Europe should decrease to 7 percent—both marked improvements but a continuing very large disparity (Hager, 1998).

Maternal mortality rates remain at a very high level in many developing countries. The United Nations Children's Fund estimates that more than 300,000 women die during pregnancy and childbirth each year. More than 90 percent of these deaths occur in the Third World. It is estimated that 30 percent of births worldwide occur without any trained person in attendance, and maternal mortality is especially high in these situations.

While still at a high level, infant mortality rates have been slowly decreasing throughout the developing world. In many developing countries, focus is more on "child mortality" (death in the first 5 years of life) than just on infant mortality. This is because children age 2 through 5 are at continued high risk in these countries—a situation unlike that in industrialized countries. Worldwide, an estimated 7 million children die each year (more than 19,000 per day) before their fifth birthday. While an extremely large number, it is a very

large decrease since 1990 at which time about 12 million under-age-5 children died each year. The cause of these deaths is a lack of access to clean water, adequate nutrition, inexpensive vaccines, and skilled birthing attendants.

The experience of Pakistan, the world's sixth largest country, illustrates the influence of economic and social development on infant mortality rates. Despite having a high infant mortality rate, little progress has been made in reducing the number of infant deaths. Concerned about this pattern, Sohail Agha studied national, community, and household data and two national surveys and identified two primary factors that accounted for the lack of progress.

First, Pakistan has considerable socioeconomic inequality that has resulted in the concentration of political power in powerful rural elite. Throughout the 1980s and early 1990s, economic planning was built around the "trickle-down theory"—that efforts should be made to promote economic flourishing of the upper classes with an expectation that their success would filter down to the lower classes. The failure of this policy resulted in substantial disparities in income; education; nutrition; and access to quality housing, sanitary conditions, and clean water—all factors implicated in infant mortality rates.

Second, Agha identified gender inequity as contributing to the high infant mortality rate. Relative to Pakistani men, women tend to be poor, illiterate, less educated, and have low social and legal status. This may contribute to a lack of priority being placed on women's and children's health. In addition, more highly educated women generally prefer having fewer children, stopping procreation at an earlier age, and having more space between births—again, all factors that have a positive effect on the health and sustainability of newborns (Agha, 2000).

the maternal mortality rate as married women. The risk of death decreases as level of education increases, with women under 20 years of age who have not graduated from high school at highest risk.

Lack of prenatal care is the major risk factor for maternal mortality in the United States. Because one out of four pregnant women in the United States experiences a major complication, such as high blood pressure or a hemorrhage,

prenatal care can be of as much benefit to a pregnant woman as to her fetus.

## MORBIDITY

**Morbidity** refers to the amount of disease, impairment, and accident in a population—for several reasons, a concept more difficult to measure than mortality. The definition of illness varies considerably from one individual to another and one group to another. Some people have a disease and do not realize it; others think they have a disease though there is no clinical confirmation. Even if one is sick, home care may be used instead of professional care, so the illness is never officially reported. In cases where a physician is consulted, the results of the examination may or may not be reported since the law does not require the reporting of all diseases. While certain communicable diseases, such as TB, polio, measles, mumps, and chicken pox are reportable, others, such as cancer and heart disease, are not. If written records (such as hospital records) are used, only the professionally treated cases are counted—resulting in an underestimation of the number of cases.

Much of the morbidity data we rely on are gathered through health surveys such as the National Health Interview Survey. While sampling techniques are now very successful in representing a population, accurate data still depend upon respondents' memories, and reporting still reflects individual perceptions of illness.

## Measurement

Two epidemiological techniques are used extensively to determine the social and ecological distribution of disease and illness: incidence and prevalence.

**Incidence and Prevalence.** The **incidence** of disease, impairment, or accident refers to the number of new cases added to the population within a given period. For example, one could report on the incidence of AIDS in the United States during the last year—that would be interpreted as the number of people newly diagnosed

with AIDS in the last 12 months. **Prevalence** refers to the total number of cases of a condition present at a given time. For example, the prevalence of AIDS in the United States today would be the total number of living people who have been diagnosed with AIDS. Together, incidence and prevalence help identify disease patterns.

## Patterns and Sociodemographic Variations in Morbidity

One aggregate approach for summarizing the extent to which morbidity exists is by collecting information on **restricted-activity days**, which are defined as days in which a person cuts down on his or her activities for more than half of the day because of illness or injury. In the United States, in 2001, the average person experienced 11.3 restricted-activity days. As summarized in Table 3–6, illness and injury were higher for the poor than the wealthy, blacks than whites or Hispanics, females than males, and those who perceive themselves to be in only fair or poor health.

The next section briefly examines the relationship between morbidity and age, SES, race, and gender. This information is supplemented by the

**TABLE 3–6** Number of Restricted-Activity Days by Selected Characteristics, 2001

Characteristic	Average Number of Restricted-Activity Days
Total Population	11.3
Male	10.4
Female	12.1
White	10.7
Black	15.8
Hispanic	11.4
Poor	15.2
High Income	9.8
Perceived Fair/ Poor Health	23.3
Perceived Excellent Health	6.8

Source: Agency for Health Care Research and Quality, Medical Expenditure Panel Survey. *Restricted Activity Days in the United States* (Washington, DC: USDHHS, 2010).

box, “The Important Link Between Health and Involvement in Positive Social Relationships.”

**Age.** The health of children in the United States has changed dramatically in the past four decades. One by one, the major infectious diseases that used to imperil children have been eliminated or significantly reduced by widespread immunization. Smallpox has been eliminated and polio will be soon. Diphtheria, scarlet fever, cholera, tetanus, pneumonia, measles, mumps, and whooping cough are increasingly uncommon in this country (though many of these diseases continue to plague children in developing countries). Though more than three-fourths of children in the United States get all their immunizations by their third birthday, some children, especially in inner-city and rural areas, do not. In addition, some individuals and organizations recently have charged that the basic immunizations can cause allergic reactions and increase the likelihood of conditions such as crib death. While some parents are now feeling ambivalence about immunizations, most epidemiologists emphasize that the country needs to remain vigilant in ensuring that children are immunized against these diseases.

As the prevalence of these infectious diseases has decreased, epidemiologists have increased attention on four other conditions that contribute to morbidity among children and adolescents:

1. **Poor diet and lack of exercise.** Poor nutrition, lack of exercise, and resulting obesity among adolescents have become a major problem. Estimates are that as many as 30 percent of adolescents are overweight, and the percentage has been increasing. This pattern has been created by twin conditions: an increasing percentage of adolescents eating less nutritious, high-fat, high-sugar diets (as per most fast food) and a decreasing percentage getting the recommended amount of exercise. While these same patterns characterize adults, patterns set in adolescence are especially difficult to break.
2. **Use of tobacco, alcohol, and other drugs.** Cigarette smoking among youth increased

substantially during much of the 1990s, then decreased until 2003, and has leveled off since then. About 20 percent of high school students smoke cigarettes, 11 percent smoke cigars, and 5 percent use smokeless tobacco. Males are slightly more likely than females to smoke cigarettes; whites are about twice as likely as blacks, with the percentage for Hispanics in the middle. Alcohol use has also remained at about the same level of use in recent years—about 30 percent of those ages 12 to 20 drink alcohol (7 percent are heavy drinkers; 15 percent binge drink; more than 10 percent drive after drinking). After reaching a high in the 1960s, the use of illicit drugs (e.g., marijuana, cocaine, and ecstasy) among youth declined during the 1970s, 1980s, and 1990s, stabilized but increased slightly in the early 2000s, and, with the exception of marijuana which is increasing, has decreased somewhat in the last few years.

3. **Sexual activity and pregnancy.** In the last several years, teen sexual activity has declined somewhat and contraceptive use has increased. About 50 percent of teens are sexually active (approximately 20 percent by age 15, 60 percent by 18, and 70 percent by 19), about one in seven has had at least four sexual partners, and about 30 percent do not routinely use a condom (regular condom use has increased among teens, although sexually active 9th graders are more likely to regularly use a contraceptive than sexually active 12th graders). This means that a substantial percentage of teens are susceptible to sexually transmitted infections and early pregnancy (about 750,000 teenage girls get pregnant each year).

With the exception of an upswing in the late 1980s and early 1990s, the rate of childbearing by teenagers has been on a long-term decline. The birth rate for teens in 2007 was about half of what it was in 1990. However, the teen birth rate in the United States is still substantially higher than it is in other developed countries. While black teenagers continue to have a higher rate of teen pregnancy, the gap between whites and blacks has narrowed in recent years. Teenage mothers are more likely not to

finish school, to be unemployed, and to have low-birth-weight babies.

4. **Violence.** Physical abuse is an increasingly recognized problem, as are emotional and sexual abuse. Substantial increases in reported physical and sexual abuse cases have occurred since 1980, although the increase is partially due to improved reporting. Suicide and homicide are increasing dangers for children and adolescents with victimization increasingly likely to occur on school facilities. Homicide is the second leading cause of death for persons ages 16 to 24.

At the other end of the age spectrum, the level of health among the elderly has improved in recent years as a result of better diet, more exercise, and more advanced and accessible health care. Despite the fact that health problems increase in the later years, older people now tend to rate their own health status as good. Fewer report disabling physical conditions. This assessment is consistent with physician evaluations and seems realistic relative to the elderly's reduced requirements for active levels of functioning, since most are no longer parenting or working.

Many believe that the human life span is relatively finite and fixed, at about 85 years on average, and that improvements in health will compress the onset of morbidity and disability into the later years of life. This will result in an improved quality of life and a reduced need for medical care. Others argue that life expectancy is rising more rapidly than the onset of morbidity is being postponed. They predict that gains in life expectancy will be accompanied by additional years of chronic illness and disability.

**Socioeconomic Status.** Nearly one in every eight Americans lives in a family with an income below the federal poverty level, and more than 20 percent of children under 18 years of age are in such families. House, Kessler, and Herzog (1990) have investigated the relationship between socioeconomic status and level of health (measured by number of chronic conditions, functional status, and limitation of daily activities) at various ages. They discovered a vast

amount of preventable morbidity and functional limitations in the lower socioeconomic stratum of American society and that the discrepancy between the poor and nonpoor was especially great for those between the ages of 35 and 75.

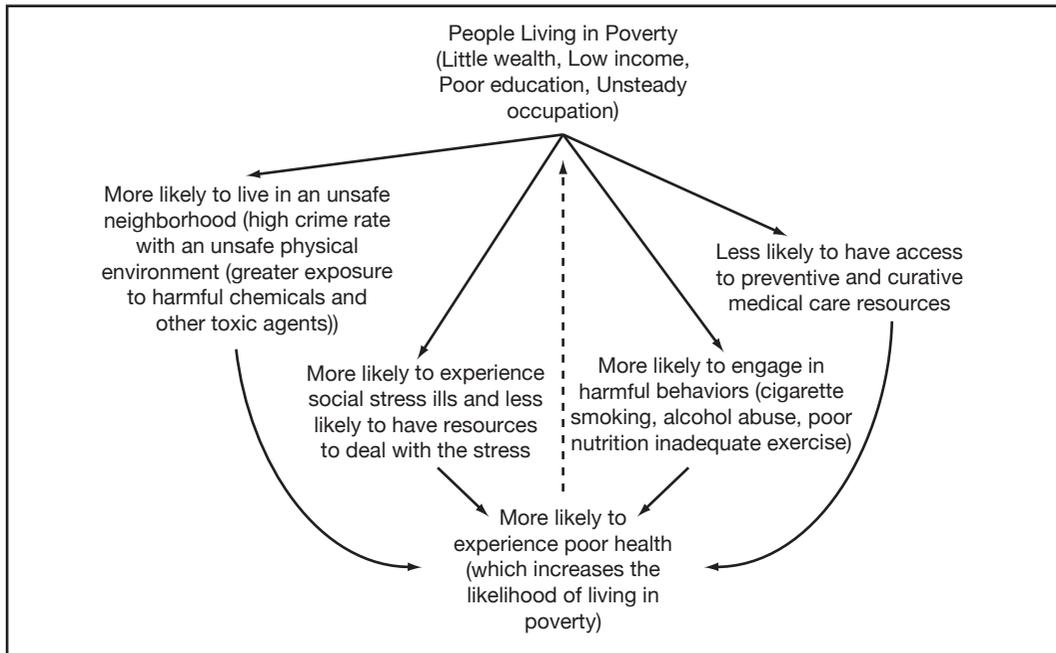
The disadvantages in health status at middle and early old age are explained by the vulnerability of this group to a number of psychosocial and environmental risk factors. These include greater exposure to physical, chemical, biological, and psychosocial hazards; increased stress due to employment insecurity and inadequate financial resources; and greater participation rates in various harmful behaviors such as smoking and alcohol consumption as well as poorer eating habits and lack of exercise. Variation among socioeconomic groups in these risk factors appears to be relatively small in early adulthood, greater during middle and early old age, and then small again in older age (House, Kessler, and Herzog, 1990).

Figure 3–1 is a representation of one model of how poverty influences morbidity and mortality.

Persons in the lower social class are more likely to live and work in areas with hazardous chemico-physical conditions and are less likely to be involved in supportive social networks. These conditions lead to higher levels of psychological stress. The poor are more likely to engage in certain health-damaging behaviors (e.g., cigarette smoking) in part due to the high level of stress. The harmful lifestyle behaviors, the high levels of stress, and the lack of support networks all contribute to increased morbidity and greater likelihood of mortality. Since the poor often cannot afford preventive or therapeutic care, health problems frequently do not receive immediate attention, and serious conditions worsen.

**Race and Ethnicity.** One of the most discouraging health-related trends in the United States in the last decade has been the worsening state of health of African Americans. Rates of morbidity are higher for blacks than whites for most diseases, including heart disease, cancer, diabetes, pneumonia and influenza, liver disease and cirrhosis, accidental injuries, and AIDS. Blacks experience more health problems than whites early in life, and their health deteriorates

Figure 3–1 The Cycle of Poverty and Pathology



Source: Adapted from Diana B. Dutton, "Social Class, Health, and Illness," pp. 31–62 in *Applications of Social Science to Clinical Medicine and Health Policy*, Linda H. Aiken and David Mechanic, eds. Copyright © 1986 by Rutgers, the State University. Reprinted by permission of Rutgers University Press.

more rapidly. Some, but not all, of this health disadvantage is due to the lower economic standing of blacks. But, at all ages and at all levels of socioeconomic standing, blacks have more health problems than whites (Ferraro and Farmer, 1996).

Research has found that race creates an added burden on the health of blacks. Williams (2012) contends that this added burden derives from three primary factors:

1. Indicators of SES are not equivalent across race. Blacks and Hispanics have lower levels of earning, less wealth, and less purchasing power at every educational level.
2. Health is affected by economic adversity over the life course—not just at the current time. Thus, there is a cumulative health hardship.
3. Discrimination—both institutional (e.g., residential segregation that leads to the more health-harmful neighborhoods in which minorities live) and individual (which, for example, has been found to be a significant source of health-harming psychological distress).

The health of Asians and Pacific Islanders is as varied as the people are diverse. Those born within the United States and established in the culture are very similar in their level of health to that of the population as a whole, but on most major indicators, Asians and Pacific Islanders are the healthiest of all racial/ethnic groups in the country.

On the other hand, most Hispanic groups—but especially Puerto Ricans—fare less well than whites on indicators of morbidity. Rates of diabetes, TB, hypertension, and AIDS are all especially high in Hispanic communities. As with other groups, Hispanics below the poverty level are at special risk.

The Mexican Americans—most at risk of morbidity—are the approximately 1 million farmworkers who do exhausting work, have high rates of accidents, and limited access to health care providers. Groups on both sides of the United States–Mexico border contend with serious air and water pollution, poor sanitation, considerable overcrowding, and illegally dumped hazardous wastes.

For Puerto Ricans, who are more likely than Cuban Americans or Mexican Americans to be under the poverty level, health problems common to metropolitan inner-city areas are the main concern, and their morbidity rates tend to be highest of the Hispanic groups.

**Gender.** Although men have a higher prevalence of fatal conditions and thus higher mortality rates, women have higher morbidity

rates for most acute illnesses (including infectious and respiratory diseases) and most chronic conditions. For men and women aged 45 and older, arthritis and high blood pressure are very common problems, but beyond age 75, hearing impairment and heart disease become more prevalent (both bigger problems for males).

Five reasons have been offered to account for gender differences in morbidity:



## IN THE FIELD

### *THE IMPORTANT LINK BETWEEN HEALTH AND INVOLVEMENT IN POSITIVE SOCIAL RELATIONSHIPS*

The important influence of social relationships on human attitudes and behaviors is well documented by sociologists and other social scientists. In the last 30 years, medical sociologists have attempted to understand better the impact of social relationships on health and illness. A key finding is that engagement in positive social relationships has a significant impact on health. Adults who are more socially connected have healthier lives and longer life expectancy than their more socially isolated peers. They are less likely to suffer from a host of diseases and illnesses (including heart disease, high blood pressure, and cancer) and do better when these diseases occur (Umberson and Montez, 2011).

How does participation in positive social relationships benefit health? Umberson and Montez (2011) identify three pathways. First, social relationships increase the likelihood of engaging in healthy behaviors and being able to withdraw from unhealthy behaviors. Interaction with others may create a sense of responsibility toward them (e.g., a parent may become more health conscious as a role model for children or to better be able to care for them). This is a behavioral explanation.

Beyond this first benefit but related to it is **social capital theory** that posits that there may be valuable resources found within our social networks. These resources might provide helpful health information, assist in

enabling health-promoting behaviors, increase access to beneficial resources, and add to an individual's self-esteem and positive self-concept (Song and Lin, 2009).

Second, the psychosocial explanation asserts that social relationships can provide a variety of psychosocial benefits. They may be an important source of emotional support, enhance mental health, assist in handling stress, and provide for greater happiness and purpose in life. As an example, a recent study of Latino sexual minorities found that those who were actively involved in local lesbian, gay, bisexual, and transgender (LGBT) organizations were better able to deal with social stigmatization, felt higher levels of social support, and were less likely to engage in potentially health-harming sexual risk behaviors (Ramirez-Valles et al., 2010).

Third, research has found that supportive relationships with others have beneficial effects on the immune system, the endocrine system, and the cardiovascular system and reduce the negative bodily effects of social stress. This is a physiological explanation.

Of course, not all social relationships are positive, and participation in a negative relationship can exact health detriments in addition to failing to provide health benefits. In both cases, participation in social relationships influences health throughout the life course and has a cumulative impact on health.

1. **Biological risks.** These result from differences in genes or hormones. Males are at some disadvantage because of women's intrinsic protection. Reproductive conditions (pregnancy, childbirth, and disorders of puerperium) account for a substantial amount—but not all—of the morbidity differential even at ages 17 to 44.
2. **Acquired risks due to differences in work and leisure activities, lifestyle and health habits, and psychological distress.** Acquired risks are different for men and women. Some lifestyle behaviors, such as smoking, alcohol consumption, and occupational hazards, are more common among men. Others, such as less active leisure activities, being overweight, stress and unhappiness, and role pressures, are associated more with women. Most analysts perceive this to be the most important explanation for gender differences in mortality and an important part of the explanation for gender differences in morbidity.
3. **Psychosocial aspects of symptoms and care.** This refers to the way people perceive symptoms, assess their severity, and decide what to do to relieve or cure health problems. Gender differences in responding to illness may stem from childhood or adult socialization that it is more acceptable for women to reflect upon and discuss symptoms and concerns. The presence of physiological conditions such as menstruation, pregnancy, breastfeeding, and menopause may encourage women to pay more attention to their bodies and be more observant of physiological changes. Much research has confirmed that women place higher value on health and have more of a preventive orientation toward health. This may be the other most important explanatory factor in morbidity differentials.
4. **Health reporting behavior.** Females are more willing to acknowledge symptoms and illness and seek care. In one study, women were discovered to be significantly more likely than men to report headache-related disability and seek health care services for their headaches—even after controlling for severity of the headache (Celetano, Linet, and Stewart,

1990). Depending on the source of the data, part of these differences may relate to continuing differences in the socioeconomic position of men and women. Women are less likely than men to be employed, so they can more easily arrange a medical visit. If a family member is ill, it is more likely that the woman calls in sick, since women on average earn less than men, and in many families it is the wife's "duty" to take care of sick children or to be at home on school holidays.

5. **Prior experience with health care and care-takers.** Males use fewer health care services. As a result of their greater participation in self-care and greater attentiveness to health status, women may derive more benefit from seeing a health care provider and receive more positive reinforcement for their attentiveness (Verbrugge, 1990).

## DISABILITY

What it means to be "disabled" or to have a **disability** has undergone significant revision in the last 20 years. Historically, the mindset in Western societies has been that disability is a personal tragedy and an individual failing. Typically, the focus has been on deficits, abnormalities, and functional limitations. Often, definitions of disability focused solely on having at least one designated disabling physical condition. For example, a person with one arm or leg would be considered as having a disability. Societal attitudes ranged from sympathy to indifference to exclusion (Barnes and Mercer, 2010).

While much of this sentiment still exists today, understanding of disability has shifted to a focus on what the body is capable of doing relative to demands placed upon it. The WHO (2013) defines disabilities as:

an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction

As the number of persons with chronic illnesses and disabilities increases, home health care and home health equipment have become booming businesses.



is a problem experienced by an individual in involvement in life situations. Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives.

Disabilities may be physical or mental, and they may include motor or sensory limitations.

An example of this evolution in orientation would be to consider the situation of a disabled individual failing to find employment. Traditionally, society may have focused on this as an individual shortcoming. But, given that the employment rate is much lower for disabled persons than the rest of the population, it may be viewed more as a structural problem—that work environments are configured in such a way to be inappropriate for people with disabilities—or even reflecting discriminatory attitudes toward disabled people (Barnes and Mercer, 2010).

Measurement of disability varies from one study to another—that is, the identification of who is and who is not disabled or what is and what is not a disability is not always the same. Nevertheless, in 2011, the World Health Organization and the World Bank published a report that estimated that 1 billion people around the world live with some form of disability and that 80 percent of these individuals live in developing countries. According to the report, those with disabilities are more than twice as likely to find health care pro-

viders unprepared to meet their needs, nearly three times more likely to be denied care, and four times more likely to be treated badly (World Health Organization and World Bank, 2011).

According to one survey, in 2010, slightly less than 20 percent of the U.S. population reported one or more disabilities. About two-thirds of these disabilities were considered to be severe and involve major activity limitation.

Table 3–7 identifies the percentage of selected population subgroups with a disability, Table 3–8

**TABLE 3–7** Percentage of the U.S. Population with One or More Disabilities, 2010

Characteristic	Percent Distribution
With any physical difficulty	18.7
Male	17.4
Female	19.8
Under age 6	2.9
6 to 14	12.2
15 and older	21.3
65 and older	49.8
White	19.8
Black	20.3
Hispanic	13.2
Asian	13.0

Source: *Survey of Income and Program Participation* (Washington, DC: United States Bureau of the Census, 2010).

**TABLE 3–8** Prevalence of Specific Disability Among Individuals 15 Years of Age and Older and 65 Years of Age and Older, 2010

	15 Years and Older (%)	65 Years and Older (%)
<b>Disability Status</b>		
With a disability	21.3	49.8
Severe	14.8	36.6
Not severe	6.5	13.2
Difficulty Seeing/Hearing/Speaking	6.2	17.9
Difficulty Walking/Using Stairs	12.6	39.4
Difficulty Standing	10.0	29.9
Difficulty Dressing	1.8	5.5
Difficulty Eating	0.8	2.4
Difficulty Toileting	1.2	3.8
Difficulty Managing Money	2.4	7.5

Source: *Survey of Income and Program Participation* (Washington, DC: United States Bureau of the Census, 2010).

**TABLE 3–9** Social Correlates of Disability, Age 21 to 64, 2010

	%	Median Household Income	% Employed
<b>Disability Type</b>			
No Disability	83.4	\$55,134	79.1
Seeing	2.3	\$31,112	41.7
Hearing	1.9	\$37,562	55.5
Walking	6.6	\$28,475	28.7
Speaking	1.0	\$29,415	34.0
Lifting	5.0	\$28,307	27.3
Pushing/Pulling	6.8	\$29,772	31.7

Source: *Survey of Income and Program Participation* (Washington, DC: United States Bureau of the Census, 2010).

reports the percentage of the population with specific disabling conditions, and Table 3–9 shows the median family income and percent employed for people without an identified disability and for people with specific functional limitations.

Blacks are slightly more likely than whites to have a disability, while Hispanics and Asians are less likely. Females report more disabilities than males and lose more days from school and work and have more days confined to bed than males. Persons in the lowest income groups average almost three times the number of disabilities as people in higher-income groups. Their lack of financial means often results in not getting access to needed services. This in turn often hinders the successful management of a chronic medical condition and makes it more difficult to

live successfully in the community (Allen and More, 1997).

Disability is very much related to age—persons 65 years of age and older are about three times more likely than younger persons to have a disability. However, disability among seniors has been declining for the last two decades. Better nutrition, higher levels of education, improved economic status, and medical advances have all contributed to this important change.

Health status and disability status are often related as many health problems arise from or are related to the main cause of disability. These secondary conditions are often linked to living conditions. For example, pressure sores and musculoskeletal disorders are common

among those who are confined to a wheelchair or bed. Not only can these complicating medical conditions arise from immobility or inactivity, but they may also be a result of the progression of the original disabling condition, such as visual impairment among diabetics. Of course, it is possible for a person to be disabled

and yet be in good health (e.g., someone who is blind). In 2010, of people age 65 and older, about 42 percent of the severely disabled and 72 percent of the nonseverely disabled were in good to very good to excellent health. About 92 percent of those without a disability reported the same positive health status.

## SUMMARY

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Prior to urbanization and migration, the threat of infectious disease and epidemics was minimal. However, diseases and epidemics began to spread with the emergence of cities and easier modes of travel. With the development of the germ theory of disease and other advances in medicine, as well as greater understanding of the importance of social factors in the transmission of diseases, the threat of epidemic diseases has been reduced. In modern societies, chronic degenerative diseases have replaced acute infectious diseases as the most frequent cause of death.

The average number of years of life to be expected from birth—life expectancy—has

increased dramatically in the United States during this century but still lags behind many other countries. Significant improvements have also been made in the overall mortality rate, the infant mortality rate, and the maternal mortality rate, though the United States still has higher rates than those in most other modern countries.

Sociodemographic characteristics are significant determinants of life expectancy, mortality, morbidity, and disability within the population. In general, the poor and African Americans are most vulnerable to illness, disability, and death. Men have a significantly higher mortality rate than women, though women experience more morbidity.

## HEALTH ON THE INTERNET

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A good way to stay abreast of mortality and morbidity data is to check the CDC's *Morbidity and Mortality Weekly Report* on the Internet (<http://www.cdc.gov/mmwr/>). After you enter the Web site, click on “Y” in the top A–Z Index, and then click on “Youth Violence.”

What are some important patterns and trends in youth violence? What are the key individual, family, peer/school, and neighborhood/community risk factors? What are some of the ways that CDC is attempting to reduce youth violence? What is the significance of violence being included in the Web site of a center for “disease control?”

## DISCUSSION CASES

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1. This chapter demonstrates how much valuable information epidemiologists provide for understanding and controlling diseases. However, data gathering can conflict with the rights of individuals. For example, identification of individuals with sexually transmitted infections, collection of names of their sexual partners, and contacting these partners can certainly infringe on

the autonomy and privacy of the individuals even as they assist in promoting public health. It is therefore extremely important that the responsibilities of epidemiologists be carried out while adhering to ethical principles of respect, justice, and equity.

Discuss these issues as they relate to the following case. Thomas Hoskins is a 21-year-old full-time college student who is

also employed 30 hours per week. The pressures of school, work, and a marriage on the rocks have been adding up for him. Three weeks ago, he went out with a few friends, had too much to drink, and ended up sleeping with a woman he met at the bar. Tests confirm that he now has gonorrhea. While giving him an injection, his physician tells him that all sexually transmitted diseases must be reported to the state health department.

Thomas is panic stricken. He fears that his wife will somehow find out (she has friends who work for the health department), and that if she does, their marriage will be over. He pleads with the physician to make an exception to his duty to report. This is his first extramarital sexual contact, and he assures the physician it will be his last.

Should the physician make an exception in this case and not comply with the state mandatory reporting law? Or should physicians always report regardless of the circumstances?

- Life expectancy in the United States has increased to about 78 years and is continuing to increase. Many respected demographers anticipate that life expectancy will top out around 88 years for females and 82 years for males. But Donald Loria, a professor at the New Jersey Medical School, believes that the average could reach 100 in the next few decades just with continued gradual increases and 110 or 120 with revolutionary advances in health and medicine (Curtis, 2004). Some others do not see this as being likely or possible.

But what if this happened? What if average life expectancy reached 100 or 110 by mid-century? Identify the changes that would occur in social institutions if 30 or 40 percent of the population was age 65 or older (up from today's 12.5 percent). If we knew this change was going to occur within the next five decades, what social planning could be done to try to facilitate it?

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# CHAPTER 4

## *Society, Disease, and Illness*

### Learning Objectives

- Distinguish between “fundamental causes” and “proximate risk factors” as causes of disease.
- Identify and discuss three important patterns of disease in the world’s developing countries.
- Explain the traditional underrepresentation of women and racial and ethnic minorities in medical research.
- Identify and explain the most important proximate risk factors related to heart disease and to cancer—the two leading causes of death in the United States.
- Identify and discuss the most important fundamental causes of disease that are discussed in this chapter.

The types of diseases that are most common within a society and their distribution among the population are determined by a wide range of factors that include the presence of disease agents; characteristics of the social, economic, physical, and biological environment; and demographic characteristics and lifestyles of the people. In every society these factors lead to some groups being more vulnerable to disease than others and being more likely to contract specific diseases.

### THE SOCIAL ETIOLOGY OF DISEASE

Explaining the reasons for disease patterns within societies requires identification of the causes (i.e., **etiology**) of disease. To fully understand disease causation and distribution, it is important to consider both *proximate risk factors* and *fundamental causes*.

*Proximate risk factors* of disease and illness refer to health-related individual behaviors and include diet, exercise, use of tobacco and alcohol, control of stress, and other aspects of lifestyle. Epidemiologists have amassed volumes of research that link these factors to the onset

of specific diseases and illnesses. *Fundamental causes* of disease and illness refer to underlying social conditions such as socioeconomic status, social inequality, community and neighborhood, exposure to stressful life events, and access to a supportive social network. These fundamental causes help shape health and disease by influencing participation in proximate risk factors (e.g., influencing the likelihood of smoking cigarettes) and by providing access to important resources (like money and social connectedness) that can bolster health and enable receipt of preventive or curative medical care (Link and Phelan, 1995, 2000).

The core of the theory of fundamental causes is that over time and across societies, socioeconomic status (SES) has influenced the occurrence of multiple diseases through multiple pathways.

Key resources such as knowledge, money, power, prestige, and beneficial social connections can be used no matter what the risk and protective factors are in a given circumstance . . . . If the problem is cholera, for example, a person with greater resources is better able to avoid areas where the disease is rampant, and highly resourced communities are better able to prohibit entry of infected persons. If the problem is heart disease,

a person with greater resources is better able to maintain a heart-healthy lifestyle and get the best medical treatment available. (Phelan, Link, and Tehranifar, 2010)

An example of an underlying social condition that has a significant impact on disease and illness and is a component of SES is education. On average, people who have a bachelor's degree or higher live nine years longer than those who do not graduate from high school. The fact that more highly educated people are healthier has been well documented and has been shown to occur through four pathways. First, well-educated persons are more likely to be employed, work full-time at a fulfilling job, and have a high income with little economic hardship—all of which impact positively on health. Second, the well educated have a greater sense of control over their lives and health and have higher levels of social support—both associated with good health. Third, well-educated persons are less likely to smoke and more likely to get adequate exercise and to drink in moderation—all positively impacting health (Ross and Wu, 1995). Finally, people with more education are more likely to have health insurance and are better able to obtain medical care.

In their book, *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations* (1994), economist Robert Evans, epidemiologist Morris Barer, and political scientist Theodore Marmor sought to explain why diseases are not randomly distributed within societies. They synthesized research done in several disciplines and included studies conducted in the United States and in other countries. While not discounting the influence of heredity in disease causation, they concluded that the primary determinants of the health of people and of the distribution of diseases within society are embedded in the social structure of society.

Hertzman, Frank, and Evans identify six possible causal pathways through which one's position in the social structure can determine health status or the likelihood of disease:

1. **Physical environment.** Some persons are more likely than others to be exposed to the potentially harmful effects of physical, chemical, and biological agents. The presence of harmful substances in the workplace (e.g., hydrocarbons in coal), or in the home (e.g., lead paint chipping from the walls), or in the neighborhood (e.g., the proximity to a landfill) serves as a pathway to ill health.
2. **Social environment (and psychological response).** Some persons live in a more stressful social environment than others, and some have greater access to supportive social relationships.
3. **Differential susceptibility.** The opportunities that individuals have for occupational success have been shown to be partially influenced by physical traits such as appearance or height. A tall person with an attractive appearance may gain some occupational advantages over a shorter person with a more disheveled appearance. These advantages may ultimately translate into circumstances (e.g., higher and more secure income) that lead to health benefits.
4. **Individual lifestyle.** Some persons live a healthier lifestyle than others. However, lifestyle decisions are often shaped by social forces. For example, it is little wonder that persons who perceive their neighborhood to be safe get more physical exercise than those who do not feel safe in their neighborhood.
5. **Differential access to/response to health care services.** Differences in health status may result from systematic differences in access to health care services, in differential propensity to use services, and in differential benefit of services received.
6. **Reverse causality.** In this pathway, one's health status influences position in the social structure rather than the commonly assumed other way around. For example, the relationship between income and sickness might occur because the sick become poor rather than the poor become sick. However, with the exception of chronic mental illness, the authors find little empirical support for this pathway.



## IN THE FIELD

### *DETERMINING DISEASE ETIOLOGY*

While identification of the causes of acute infectious diseases may be a complicated matter, tracing the origin of most chronic degenerative diseases is far more difficult. Among the most important reasons for this greater challenge are the following:

1. Most chronic degenerative diseases, like cancer and coronary heart disease, have multiple causes. Rather than being traceable to the presence of a particular bacterium, factors related to diet, exercise, personality type, smoking and drinking behavior, stress, social support, and other factors interrelate in countless configurations. Measuring the amount, duration, and effects of each factor on an individual is very difficult.
2. With many chronic degenerative diseases, there is a long latency period between the influence and the consequence. Cancer often appears 20 to 30 or more years after exposure to the carcinogenic substance, making it difficult to determine cause-and-effect relationships. Moreover, not everyone who is exposed to a harmful lifestyle or a carcinogenic substance will contract degenerative disease (e.g., some lifetime smokers never get lung cancer).
3. It is very difficult to determine how much of a behavior or how much of a substance is necessary to trigger a disease. Some researchers point out that almost any substance taken in sufficiently large quantities can be health damaging. Many regulations of substances in society are based on the idea that there is a threshold of exposure below which there is no danger to health. Others disagree, saying that there are only lower levels of danger.
4. The validity of generalizations from animal testing to humans is an unresolved question. For example, the amount of a substance required to cause cancer in an animal may not realistically indicate the amount to which humans can safely be exposed. There are many toxicologists on both sides of this issue. Some years ago, when limits on human consumption of saccharin were contemplated based on laboratory tests on rats, one wag suggested that diet soft drinks should contain the warning, "Warning: Extensive use of this product has been shown by scientists to be dangerous to your rat's health."

The process of sorting through all these factors and determining disease etiology, especially for chronic degenerative diseases, is a challenging task as the box "Determining Disease Etiology" explains.

### **THE INTERRELATIONSHIP OF PROXIMATE RISK FACTORS AND FUNDAMENTAL CAUSES: THE CASE OF DEVELOPING COUNTRIES**

In Chapter 3, we used the Epidemiological Transition to explain the general shift from acute infectious diseases to chronic degenerative

diseases within societies as they modernize. Because the pace of this transition has accelerated in recent years, developing countries in the world today are confronted with a double burden. While they are continuing to have to deal with infectious parasitic diseases (such as malaria and tuberculosis), they are already facing increased rates of the chronic degenerative diseases (such as heart disease and cancer) that predominate in industrialized countries. For example, China and India, the world's two largest countries, have huge populations today with diabetes and high blood pressure, a sign that increased rates of heart disease are likely in the near future. See the accompanying box,



## IN COMPARATIVE FOCUS

### *DISEASE AND ILLNESS PATTERNS IN WORLDWIDE PERSPECTIVE*

The main causes of death and sickness around the world have changed significantly in the last 10 to 20 years with chronic degenerative diseases becoming more and more important. The *Global Burden of Disease Study*, published in 2012 in *The Lancet* is a collaboration of 486 scientists in 302 institutions in 50 countries and an effort to understand death, sickness, and disability in countries around the world.

The study found that people are living longer nearly everywhere around the world and fewer children are dying, but that people are more often dealing with chronic degenerative diseases (diseases that occur later in life). Sixty percent of deaths worldwide are due to chronic degenerative diseases (Narayan, Ali, and Koplan, 2010). Key findings are that heart disease and stroke are the leading causes of death around the world; that diabetes, lung cancer, and motor vehicle accidents are becoming increasingly common causes of death; and that certain conditions such as malnutrition and childhood infectious diseases are decreasing as causes of death. However, the health of persons age 10 to 24 has not kept pace, and injuries (especially from traffic accidents), suicide, homicide, AIDS, and complications of childbirth account for most deaths in this age category. Mental health problems in people of all ages continue to be of great concern (Holtz, 2013).

In 2012 the World Health Organization identified these ten facts as being key to understanding world disease patterns.

1. Around 7 million children under the age of 5 die each year (most could be saved with simple interventions).
2. Cardiovascular death is the leading cause of death in the world (most could be prevented or delayed by healthy diet; regular, physical exercise; and by not using tobacco).
3. HIV/AIDS is the leading cause of death in Africa (many still do not know they are infected).
4. Population aging is contributing to the rise of cancer and heart disease (this is occurring in all countries).
5. Lung cancer is the most common cause of death from cancer (70 percent caused by tobacco use).
6. Complications of pregnancy account for almost 15 percent of deaths in women of reproductive age worldwide (women in developing countries have a 25 times greater chance of dying from a pregnancy-related cause).
7. Mental disorders such as depression are among the 20 leading causes of disability (more than 350 million people worldwide suffer from depression).
8. Hearing loss, vision problems, and mental disorders are the most common causes of disability (many are easily treatable but necessary resources are lacking in developing countries).
9. Nearly 3,500 people die from road crashes every day (increasing vehicle ownership in developing countries will likely increase this number).
10. Undernutrition is the underlying cause of death for at least one-third of all children under 5 (due to inadequate breastfeeding, inappropriate food, and lack of access to nutritious foods).

“Disease and Illness Patterns in Worldwide Perspective.”

To assist in handling this critical situation in developing countries, a broad program for research and empowerment called the **health transition (HT)** has been developed (Caldwell,

1993). The program is grounded in three themes (Gallagher, Stewart, and Stratton, 2000):

1. *The importance of equitable distribution of income and wealth.* Health progress occurs more rapidly in countries without huge

disparities in wealth. Some countries that are relatively poor but do not have sharp divisions in wealth (e.g., China and Cuba) have made more headway in reducing death rates than some relatively wealthier countries with greater inequality (e.g., Iran).

2. ***The importance of public and community health.*** It is commonly accepted that the decline in the death rate in industrialized countries resulted more from public health measures than from advances in clinical medicine. Therefore, developing countries are being urged to invest in social policies that emphasize improvements in food and water supply, sanitation, access to primary health care, community development, and greater opportunities for women in education, employment, and public life. Countries are being discouraged from investing available funds in high-technology medicine with much more limited impact.
3. ***The importance of lifestyle and behavioral factors.*** While proximate risk factors such as diet, tobacco, and sexual behavior are important in industrialized countries because of their link to chronic diseases, they are especially important in developing countries because of their link to infectious diseases. Thus, emphasis is encouraged on such behaviors as drinking only safe water (which might necessitate considerable travel and inconvenience), limiting family size to a number that can be economically supported, and using a condom for nonmonogamous sex.

For an example of the relationship between fundamental causes and proximate risk factors in the United States, see the box, “Toxic Air and America’s Schools.”

### THE INFLUENCE OF GENETIC TRANSMISSION ON DISEASE AND ILLNESS

Knowledge about the role of genetic transmission in disease and illness has increased substantially in the last several years with

the successful mapping of the approximately 25,000 genes within each human. The **Human Genome Project** began in 1990 with the goal of assigning each gene to its proper location on a chromosome. The work that was conducted in the United States (about 60 percent) and England (30 percent) and elsewhere was largely completed in 2000. This knowledge could be used to reduce the incidence of diseases caused in whole or in part or by genetic impairments.

Given the importance of underlying social conditions and proximate risk factors in affecting disease and illness, what role is played by genetic transmission? Essentially, genes affect disease and illness in two primary ways:

1. ***As the specific cause of approximately 4,000 “genetic diseases,” including Down syndrome, cystic fibrosis, Tay-Sachs disease, Huntington’s disease, and sickle-cell anemia.*** Some diseases are monogenic in that they can be traced to a single gene. For example, chromosome 21 is the site of genes for Down syndrome, Lou Gehrig’s disease, and epilepsy. More diseases are polygenic in that they result from several genes acting together. These are more complicated causal relationships about which much more needs to be known.

While genetic diseases represent a small component of all diseases, they are especially apparent early in life. About one-fourth of all admissions to U.S. hospitals for persons under 18 is for a genetic disease or condition, and genetic conditions are the second leading cause of death for children between the ages of 1 and 4.

2. ***As a factor that increases the likelihood of occurrence of many other diseases, including heart disease, some types of cancer, Alzheimer’s disease, and diabetes.*** In these cases, an individual’s genetic makeup provides or denies an opportunity for environmental factors to trigger a particular disease. An even greater number of diseases follow this multifactorial path in which the genes and the environment interplay in causing a disease to occur.



## IN THE FIELD

### TOXIC AIR AND AMERICA'S SCHOOLS

Air samples taken outside Meredith Hitchens Elementary School in Addyston, Ohio, a suburb of Cincinnati, showed high levels of chemicals coming from the plastics company across the street. The Ohio Environmental Protection Agency (EPA) concluded that the risk of getting cancer there was 50 times higher than what the state considers acceptable. School district officials closed the school. The air outside 435 other schools across the country appears to be even worse.

The newspaper *USA Today*, working with researchers from Johns Hopkins University and the University of Massachusetts, Amherst, spent eight months using the most up-to-date computer modeling process for tracking industrial pollutants outside schools across the nation. Their research led to a ranking of 127,800 public, private, and parochial schools based on the level of nearby toxic chemicals and health hazards. The findings are important because children are especially susceptible to airborne pollutants, as they breathe in more air relative to their weight

than adults do (Heath, Morrison, and Reed, 2008; Morrison and Heath, 2008).

How could such a condition exist? Many states have no laws regulating where schools can be built. In building new schools, school districts often look for inexpensive land (10 percent of the 435 worst schools had been built in the last decade). Inexpensive land can often be found near heavy (oftentimes polluting) industry. Throughout most of the first decade of the 2000s, the EPA was less aggressive in pursuing polluting industries and had never done research of this type around the nation's schools. Few people want a school built in proximity to their home. Residents of low-income communities typically have less influence on local decision making than do residents of more well-to-do communities. Low-income communities routinely deal with greater industrial pollution.

Want to check out the schools that you attended? Go to: [www.smokestack.usatoday.com](http://www.smokestack.usatoday.com).

Some laypersons have become so excited by the new knowledge of genes and their implications for disease and illness that they have envisioned a future in which all disease can be understood through genetic roots. However, this perspective ignores all the knowledge that we already have about social pathways to disease and illness. Both genetic and sociological lines of research need to continue as do efforts to integrate the perspectives, or at least to use both of them in understanding why disease and illness occur as they do. As an illustration, Bearman (2008) cites the fact that the genetic tendency to obesity can only be observed in societies that produce a surplus of food. This example points to the need for the work of both biologists and sociologists to unravel the contributions of genes and social factors to particular diseases and conditions.

This is exactly what Pescosolido and others (2008) did in a study trying to understand alcohol dependence. Using data from the Collaborative Study on the Genetics of Alcoholism, they tested propositions about alcohol dependence based on three sociological theories and on the influence of the GABRA-2 gene (that has been linked to alcoholism). They found strong evidence that the GABRA-2 gene increases the likelihood of alcohol dependence, but that this influence was largely true only for men, that childhood deprivation enhances the gene's expression in alcohol dependence, and that living within a strong socially supportive network almost completely eliminates its effects. Thus, in this case, consideration of both genetic and social influences provides the fullest understanding.

Medical research is a foundation for advances in understanding disease causation and the evaluation of new therapeutic agents. The National Institutes of Health (NIH) is the leading medical research organization in the United States.



In the remainder of this chapter, five significant but very different diseases and conditions in American society are examined. **Cardiovascular diseases (CVDs)** and cancer are the two leading causes of death in the United States; mortality from the former has decreased significantly in recent years while mortality from the latter has leveled off. HIV/AIDS is a relatively recently identified disease that has quickly become a worldwide epidemic. It appears to be in transition from a fatal disease to a controllable, chronic condition. Alzheimer's disease was first identified in the early 1900s as a disease of mental deterioration in mid- and late adult life. It is currently the only one of the ten leading causes of death in the United States for which there is no prevention, cure, or treatment. Mental illness and severe mental disorders have long been studied and a considerable body of research has developed around their etiology. Nevertheless, they are still sometimes

considered to be less “legitimate” than physical diseases and illnesses.

## CARDIOVASCULAR DISEASES

### The Cardiovascular System

The body's cardiovascular system transports necessary nutrients, oxygen, and water to all the body's tissues; carries substances like disease-fighting antibodies to wherever they are needed in the body; and removes carbon dioxide and other waste products. The pumping of the heart stimulates the flow of blood, which is the transportation system. For the heart to function properly (it beats about 100,000 times a day, pumping about 1,800 gallons of blood), it must receive an adequate supply of blood from the three main coronary arteries and their smaller branches. Heart disease occurs when this system is disrupted.



## IN THE FIELD

### *THE HISTORICAL UNDERREPRESENTATION OF WOMEN AND RACIAL AND ETHNIC MINORITIES IN BIOMEDICAL RESEARCH*

The physiology and social position of women and men and blacks and whites differ in ways that relate to disease and illness. Gender and racial/ethnic groups show different propensities to different diseases. Therapeutic and pharmacological agents affect people differently. For these reasons, biomedical research must be conducted on samples reflecting population differences (within or among studies). Amazingly, until the 1990s, this was often not the case. Dresser summarized the issue in 1992.

The failure to include women in research populations is ubiquitous. An NIH-sponsored study showing that heart attacks were reduced when subjects took one aspirin every other day was conducted on men, and the relationship between low-cholesterol diets and cardiovascular disease has been almost exclusively studied in men. Yet coronary heart disease is the leading cause of death in women. Similarly, the first twenty years of a major federal study on health and aging included only men. Yet two-thirds of the elderly population are women. The recent announcement that aspirin can help prevent migraine headaches is based on data from males only, even though women suffer from migraines up to three times as often as men.

The list goes on: studies on AIDS treatment frequently omit women, the fastest growing infected population. An investigation of the possible relationship between caffeine and heart disease involved 45,589 male research subjects . . . Moreover, the customary research subject not only is male, but is a white male. African Americans, Latinos, and other racial and ethnic groups have typically been excluded . . . (Dresser, 1992:24)

What is the outcome of this bias? Of the ten prescription drugs that were withdrawn from the market between 1997 and 2000, eight had a more adverse reaction on women than men. Two of the drugs caused a rare but dangerous form of heart arrhythmia in some women who took them. These unanticipated reactions occurred because the drugs had not been adequately tested on women.

In addition, several studies identified the absence or inadequate representation of racial and ethnic minority group members in biomedical research. Despite recognized differences in drug response and metabolism among members of various racial/ethnic groups, they have been routinely underrepresented in clinical drug trials (Beech and Goodman 2004; Thomas et al., 1994).

How has this exclusionary policy been justified? Some have set the bias within the historical context (Duster, 2006). Some have cited the benefits of studies with homogenous samples: The more alike the samples, the more that variation can be attributed to the intervention under study. Some have argued that women would complicate studies by their hormonal changes during the menstrual cycle; that research could be jeopardized by women who become pregnant during the research; and that women are more difficult to obtain as volunteers.

But, none of these reasons is adequate. Critics pointed out that comparable studies could be conducted on groups other than white males or statistical controls could be used within heterogeneous samples. Hormonal changes during the menstrual cycle are part of reality; rather than being viewed as somehow distorting results, efforts need to be made to understand the influence of personality type on heart disease and the influence of aspirin on migraine headaches and so forth in women, given their particular physiology. It has been argued that, logically, it would make just as much sense to say that the absence of a menstrual cycle ought to disqualify males for fear of skewed results (Dresser, 1992; Merton, 1993).

Criticism of previous protocols has had some effect. A major research initiative—the Women's Health Initiative—was started in 1991 to study heart disease and stroke, cancer, and osteoporosis in women of all races and all socioeconomic strata. Medical researchers who receive federal grants are now prohibited from studying only men. Spending for women's

*(Continued)*

(Continued)

health research is at an all-time high. The successful effort to bring this issue to public attention and to enlist Congress in making change was directed by a number of important groups including many sociologists (Auerbach and Figert, 1995).

However, some recent research has found that heart failure clinical trials still overrepresent younger, white males in their study populations, suggesting that more attention needs to be paid to this area (Heiat, Gross, and Krumholz, 2002). Moreover, Epstein (2007) has provided an insightful overview of this issue that includes concerns that “inclusionary” research may sometimes lean toward seeing gender or racial differences as being so rooted in biological differences that the importance

of social context and social inequities is lost. This makes the telling point that it is not just the amount of research that is key but rather researchers’ approach and understanding of social context.

The need for more medical research and more sociologically informed medical research on traditionally underrepresented groups is complicated by the fact that the budget for the National Institutes of Health (NIH)—the primary medical research organization in the United States—was stagnant through most of the first decade of the 2000s. Without a stronger commitment by the federal government, progress in understanding and treating diseases and in understanding differences among racial, ethnic, and gender groups will also stagnate (Loscalzo, 2006).

### Cardiovascular Disease

The inner surface (or inner layers) of any artery may become thickened, resulting in narrowing and hardening of the artery (atherosclerosis) that decreases the amount of blood that can flow through it. If this occurs to one or more of the coronary arteries (usually caused by a buildup of plaques of cholesterol and other fatty substances or a blood clot), the result is **coronary heart disease (CHD)**—often called ischemic heart disease. If the blood flow is severely restricted, the heart may not receive enough blood to meet its needs (this often happens during exercise). The person may feel a tightening sensation or squeezing feeling in the chest that may radiate into the left arm and elsewhere. This is the most common form of CVD.

If a coronary artery becomes completely blocked because of a blood clot, the heart may not receive enough blood to fulfill its normal workload. In only a few hours, the heart undergoes irreversible damage. A heart attack—also called a myocardial infarction—is the sudden death of part of the heart muscle. There are many other forms of heart disease that can occur with the heart valves, the veins, or the heart muscle itself.

Two other CVDs are discussed in this chapter. High blood pressure (**hypertension**) is the name given to the condition when an abnormally large amount of force is exerted against the arterial walls by the flow of blood; it is a sign that the heart is pumping harder than it should to circulate the blood and that the arteries are under a strain. If untreated, the heart may begin working harder and harder and may eventually become enlarged and not be able to function properly. In addition, the arteries may not be able to deliver blood properly, thus endangering other body organs.

A **stroke** is a condition that occurs when part of the brain does not receive the amount of blood it requires to sustain normal activity. If a blood vessel bringing oxygen and other nutrients to the brain gets clogged or bursts, the brain’s nerve cells will be deprived of oxygen, and within minutes, they die. This eliminates their ability to send messages to other parts of the body and may result in partial paralysis; speech, language, or memory loss; changes in behavior; and spatial and perceptual deficits.

### Incidence and Mortality

In 2012, about 80 million Americans had one or more forms of CVD, including high blood

pressure (59 million), CHD (15 million), and stroke (6 million). CVD is the number one killer in the United States, claiming about 31 percent of all deaths in 2012 (approximately 750,000 deaths). If all major forms of CVD were eliminated, life expectancy would rise by about seven years.

Heart disease has often been considered a man's disease in the United States, and much more research has been conducted on heart disease in males than females. However, this is a misperception. About one male in five and about one female in five has some form of CVD, but because there are more women in the U.S. population, more women than men have heart

disease, and more women than men die from it each year. Heart disease is the leading cause of death for both men and women, but women are more likely to die from a heart attack than men. Under age 50, heart attacks in women are twice as likely to be fatal.

Heart disease is the leading cause of death among whites and blacks, but death rates are considerably higher for blacks. For Hispanics, Asian-Americans and Pacific Islanders, and American Indians and Alaska Natives, cancer is the leading cause of death and heart disease is second (Centers for Disease Control and Prevention, 2013).



Advances in treatment of heart disease have led to the creation of many cardiac rehabilitation centers around the country. These facilities include heart and healthy living education, constantly monitored physical exercise, and emotional support for living healthily and happily with coronary heart disease.

## Etiology

The five major proximate risk factors for CVD are (1) cigarette smoking, (2) poor diet (especially as expressed in high levels of cholesterol and high blood sugar), (3) high blood pressure (both a disease and a risk factor for other diseases), (4) obesity (mostly resulting from poor diet and lack of exercise), and (5) high levels of social stress.

**Cigarette Smoking.** The World Health Organization has called tobacco the single biggest cause of premature adult death throughout the world—it kills about 6 million people annually and is predicted to kill 8 million annually by 2030. Given current projections, half of all those in the world who smoke cigarettes—about 650 million people—will eventually die from tobacco. Studies in the United States have determined that cigarette smoking is the biggest risk factor for sudden cardiac death and that smokers have two to four times greater risk than nonsmokers of having a heart attack. Smokers are approximately 30 percent more likely than nonsmokers to experience fatal coronary heart disease.

Moreover, there is extensive danger in breathing in **environmental tobacco smoke (ETS)**—that is, other people’s tobacco smoke. Never-smokers living with smokers had a 1 to 3 percent greater chance of developing heart disease than never-smokers living with nonsmokers. Nationally, this equates to approximately 45,000 deaths from CHD annually as a result of breathing ETS.

**Poor Diet.** Eating well with a diet high in fruits and vegetables, whole grains and high-fiber foods, and fish and low in saturated and trans fats, cholesterol, and salt is a heart health protector. Those who eat poor diets often end up with high levels of blood sugar and high cholesterol. **Cholesterol** is a type of fat (lipid) that can build up in the bloodstream. It is transported in the bloodstream via little packages called lipoproteins. Most blood cholesterol is carried into the circulatory system by low-density

lipoproteins (LDLs) where it may be deposited and accumulate on the arterial walls, causing restriction of blood flow. Cholesterol is also carried on high-density lipoproteins (HDLs), which actually help to remove the plaque from the arteries. The greater the ratio of LDL to HDL, the more likely is cholesterol plaque buildup. As this ratio increases, the chance of heart disease increases.

**High Blood Pressure.** Approximately one-third of American adults have high blood pressure (defined as a pressure of 140/90 mmHg or higher or taking antihypertensive drugs), which is the major cause of strokes and deaths from strokes and one of the major causes of heart attacks and heart attack deaths. Several factors are associated with high blood pressure. Generally, the older people get, the more likely they are to develop high blood pressure. People whose parents have high blood pressure are more likely to develop it, and blacks are more likely than whites to suffer from the disease. When high blood pressure exists with obesity, smoking, high blood cholesterol levels, or diabetes, the risk of stroke or heart attack increases substantially.

**Obesity.** According to national surveys of body mass index (BMI), which measures composition of the body, only 30 percent of American adults are of a healthy weight. Approximately one-third are overweight and another one-third are obese (significantly overweight). Obesity increases the likelihood that cholesterol, blood sugar, and blood pressure will all be too high. Being overweight increases the likelihood of heart disease; and being obese significantly increases the likelihood of heart disease—especially if the extra weight is concentrated around the waist. Obesity is a main factor in more than 100,000 heart disease deaths in the United States annually.

**Social Stress.** Social stress (the focus of Chapter 5) is a contributing factor to a wide variety of diseases and ailments including heart disease. Stress produces a multitude of physiological effects, many of which are



Getting adequate exercise is one of the most important activities in which people can engage to prevent heart disease and other chronic degenerative diseases. However, too few Americans actually get the recommended amount of weekly exercise.

detrimental to a healthy heart. The key may be the way that a person deals with stress. For example, people under considerable stress may overeat or eat poor nutritional foods, may not get sufficient sleep, may drink excessively, may increase smoking, or may get too little physical exercise.

**Other Factors.** Other factors that contribute to the risk of heart disease include family history (having a family history of heart disease—especially in one’s parents or siblings and at an early age—elevates personal risk for the disease), diabetes (which increases the risk of developing CHD partly due to the effects the disease has on cholesterol and blood sugar levels), and poor dental health, such as chronic gum disease.

### Trends

The death rate from CVDs has declined steadily and dramatically over the past several decades (by 50 percent in the last 35 years and by about 25 percent just in the last ten years). The percentage of deaths due to heart disease has declined, and heart failure typically now occurs much later in life (usually past the age of 70). About half of this sharp decline is due

to changing individual behaviors. Cigarette smoking is down significantly, changes in diet (and more effective drugs) have brought cholesterol levels down, and blood pressure levels are lower than a decade ago. The other half is due to improved medical therapies including initial treatment for those with chest pain or having a heart attack, bypass surgery, and long-term rehabilitation (Ford et al., 2007).

### CANCER

Normally the body’s cells reproduce themselves in an orderly manner. As the body grows, worn-out tissues are replaced, and injuries are repaired. Occasionally, however, some abnormal cells develop and may begin to spread throughout the body. These abnormal or cancer cells are usually defeated and eliminated by our body’s immune system—a specialized group of cells that guard against the invasion of foreign cells in the body. The term **cancer** refers to a group of diseases that are characterized by an uncontrolled growth (often into masses of tissue called tumors) and spread of abnormal cells. “Benign” tumors are noncancerous (these do not spread and are not typically a threat to life); “malignant” tumors are cancerous. When

the cancer cells remain at their original site, the disease is said to be localized; when they spread and invade other organs or tissue, the disease is said to have metastasized, or metastasis has occurred.

Cancer often creates considerable pain. This occurs as various tubes within the body (e.g., esophageal, intestinal, and urinary bladder) become obstructed or as the expanding tumor destroys additional healthy tissue. Infections often occur. A cancerous tumor unsuccessfully removed or destroyed eventually causes death.

### Incidence and Mortality

Current estimates are that 13.7 million Americans alive now have been diagnosed with cancer (some are now cancer-free), and an additional 1.7 million persons are diagnosed with cancer each year. About one male in two and slightly more than one female in three will be diagnosed with cancer at some point in the lifetime. These figures do not include the estimated 2 million cases of skin cancer (which are discussed later in this chapter) diagnosed annually. About 77 percent of all cancers are diagnosed in persons age 55 and older (American Cancer Society, 2013).

Cancer is the second leading cause of death in the United States, claiming more than 580,000 lives each year. One death in four is due to cancer. The national death rate from cancer has increased steadily during the last 50 years. The age-adjusted rate has gone from 143 per 100,000 in 1930 to 152 in 1940, to 158 in 1950, and has been about 170 since 1984. The largest portion of this increase is due to lung cancer, with almost 230,000 new cases identified each year with almost 160,000 annual deaths. In fact, if lung cancer deaths were excluded, the mortality rate from cancer would actually have declined in the last 50 years.

Table 4–1 portrays the most common sites of newly diagnosed cancer, by incidence and by mortality, for males and females. For males, the prostate, the lungs, and the colon/rectum are the most common new cancer sites, but lung cancer is by far the most lethal cancer, accounting for

30 percent of all male cancer deaths. The breast, the lungs, and the colon/rectum are the most common new cancer sites for females, and lung cancer is the most common fatal site, accounting for one-fourth of female cancer deaths.

Persons with lower socioeconomic status have much higher cancer death rates than those with higher SES. This is especially true with regard to education. White, Hispanic, and black males with less than a high school education are almost three times more likely to die from cancer than their counterparts with a college education or higher. The disparity is highest for lung cancer reflecting the higher rate of smoking among those with less education, but it also reflects less physical activity and poor diet among these groups, and slow treatment once cancer has developed.

Cancer incidence and mortality rates at almost all body sites are higher for blacks than for whites—cancer incidence is about 14 percent higher and cancer mortality is about 33 percent higher. The five-year survival rate for cancer is 9 percent higher in whites. Studies of racial disparities in cancer all point to socioeconomic explanations. African Americans are more likely to be in poverty, have less education, and be less likely to have health insurance. The lack of health insurance leads to less preventive care, later detection of cancer, and less likelihood of high-quality treatment.

Hispanics, Asian Americans and Pacific Islanders, and American Indians and Alaskan Natives overall have somewhat lower rates than whites of cancer incidence and mortality. However, all these groups have a higher rate of cancer due to infection (especially in the stomach, liver, and cervix). Because lifestyle relates so closely to cancer risk, these groups are being studied to determine reasons for their overall lower susceptibility.

### Etiology

The World Health Organization estimates that up to 90 percent of all cancers are environmentally induced or related. Environmental cancer-producing substances, or **carcinogens**, are found

**TABLE 4-1** The Most Common Sites of New Cancer Cases and of Cancer Deaths

Estimated New Cases		Estimated Deaths	
Female	Male	Female	Male
Breast 232,340 (29%)	Prostate 238,590 (28%)	Lung & bronchus 72,220 (26%)	Lung & bronchus 87,260 (28%)
Lung & bronchus 110,110 (14%)	Lung & bronchus 118,080 (14%)	Breast 39,620 (14%)	Prostate 29,720 (10%)
Colon & rectum 69,140 (9%)	Colon & rectum 73,680 (9%)	Colon & rectum 24,530 (9%)	Colon & rectum 26,300 (9%)
Uterine corpus 49,560 (6%)	Urinary bladder 54,610 (6%)	Pancreas 18,980 (7%)	Pancreas 19,480 (6%)
Thyroid 45,310 (6%)	Melanoma of the skin 45,060 (5%)	Ovary 14,030 (5%)	Liver & intrahepatic bile duct 14,890 (5%)
Non-Hodgkin lymphoma 32,140 (4%)	Kidney & renal pelvis 40,430 (5%)	Leukemia 10,060 (4%)	Leukemia 13,660 (4%)
Melanoma of the skin 31,630 (4%)	Non-Hodgkin lymphoma 37,600 (4%)	Non-Hodgkin lymphoma 8,430 (3%)	Esophagus 12,220 (4%)
Kidney & renal pelvis 24,720 (3%)	Oral cavity & pharynx 29,620 (3%)	Uterine corpus 8,190 (3%)	Urinary bladder 10,820 (4%)
Pancreas 22,480 (3%)	Leukemia 27,880 (3%)	Liver & intrahepatic bile duct 6,780 (2%)	Non-Hodgkin lymphoma 10,590 (3%)
Ovary 22,240 (3%)	Pancreas 22,740 (3%)	Brain & other nervous system 6,150 (2%)	Kidney & renal pelvis 8,780 (3%)
All sites 805,500 (100%)	All sites 854,790 (100%)	All sites 273,430 (100%)	All sites 306,920 (100%)

\*Excludes basal and squamous cell skin cancers and in situ carcinoma except urinary bladder.

Source: Data from the American Cancer Society, *Cancer Facts and Figures—2013*, Atlanta, GA: American Cancer Society, Inc.

in the food and drugs we ingest, the water we drink, the air we breathe, the occupations we pursue, and the substances with which we come into contact. Particular carcinogens are related to the development of cancer in particular locations. Seven important proximate risk factors are as follows: (1) cigarette smoking, (2) poor diet, (3) excessive alcohol consumption, (4) overexposure to sunlight, (5) occupational hazards, (6) radiation, and (7) environmental pollutants.

**Cigarette Smoking.** The strong relationship between cigarette smoking and heart disease is duplicated for cancer. Smoking is associated with high rates of lung cancer as well as cancer of the mouth, pharynx, larynx, esophagus, pancreas, uterine cervix, kidney, and bladder. The American Cancer Society

estimates that cigarette smoking is responsible for almost one-third of all cancer deaths and for almost 90 percent of all lung cancer deaths. Lung cancer mortality rates are more than 23 times higher for current male smokers and more than 13 times higher for current female smokers compared to lifetime never-smokers. Alone, smoking greatly increases risk, but with other carcinogens (e.g., poor diet), the risk is even greater. Half of those who continue to smoke throughout their life will die from a tobacco-related disease.

Environmental tobacco smoke has also been identified as a cause of cancer in nonsmokers with an estimated 3,400 lung cancer deaths per year and more than 45,000 heart disease deaths per year attributable to ETS. Secondary smoke may have especially serious effects on fetuses

and young children. A mother who smokes is more likely than a nonsmoker to have a spontaneous abortion and much more likely to produce a low-birth-weight infant (with a greater chance of dying in the first year of life). Infants born to women who smoked during pregnancy are also more likely to die from sudden infant death syndrome. In addition, children of parents who smoke have a higher incidence of impaired lung function, bronchitis, pneumonia, and middle ear infections than children of nonsmokers (American Cancer Society, 2013).

**Poor Diet.** Research has demonstrated a clear link between diet and the incidence of cancer. Experts have concluded that diet may be related to as many as 35 percent of all cancer deaths. In general, the type of diet that protects heart health also protects against cancer.

Studies based on international variations in cancer mortality have been illuminating. For example, higher rates of cancers of the colon, rectum, breast, and prostate are found in Western countries in which diets are relatively high in meat and fat but low in fruits, vegetables, and whole grains. On the other hand, stomach cancer rates are higher in countries in which diets are relatively high in starch, contain small amounts of meats and fats, and frequently use pickled, salted, smoked, or other preserved foods. High-fiber foods have been shown to lower the risk of colon cancer, and diets rich in vitamins A and C reduce risk for cancers of the larynx, esophagus, stomach, and lung.

**Excessive Alcohol Consumption.** Drinking in moderation has not been linked to cancer, but people who drink alcohol should limit their intake to no more than two drinks per day for men and one drink per day for women. Excessive alcohol consumption is the primary cause of cirrhosis of the liver, a very grave disease resulting in serious malfunction. In turn, people with long-standing liver cirrhosis are at high risk for developing liver cancer, a type of cancer with generally poor prognosis. Cancers of the mouth, larynx, throat, and esophagus all have been linked to excessive drinking of alcoholic beverages,

especially in combination with the use of tobacco products. For each of these cancers, risk increases substantially with intake of more than two drinks per day.

**Overexposure to Sunlight.** Almost all the 1 million cases of nonmelanoma skin cancer diagnosed each year in the United States are considered to be sun related. If detected early, these cancers are fairly routine to remove. Much more dangerous is malignant melanoma skin cancer, which is not so much related to amount of sun exposure over a lifetime but rather to one or a couple of intense episodes of sunburn (often early in life).

In the United States risk of overexposure to ultraviolet radiation also occurs in skin tanning. An estimated 30 million Americans use tanning beds each year, and epidemiologic data demonstrates that they are at increased risk for both melanoma and nonmelanoma skin cancers. The World Health Organization has classified tanning beds as a group 1 carcinogen (Fisher and James, 2010).

The incidence of health problems from an excessive amount of the sun's harmful ultraviolet rays may well increase significantly in the next decade. As humankind continues to pour ozone-depleting chemicals into the atmosphere, the earth's protective barrier against ultraviolet rays will continue to be destroyed. The United Nations Environmental Program predicts significant increases in the incidence of both cataracts and skin cancer in the coming years.

**Occupational Hazards.** Individuals who work in industries that involve hazardous substances have increased risks of cancer. For example, exposure to the hydrocarbons found in petroleum and coal is associated with increased risk of cancer of the lung, skin, and bladder; exposure to benzene can induce leukemia; mustard gas exposure is related to a higher incidence of lung cancer; and exposure to asbestos is clearly associated with increased risk for several types of cancer (especially in conjunction with cigarette smoking).

**Radiation.** The link between ionizing radiation and cancer has long been recognized. The major source of radiation in the United States is the natural cosmic background, which accounts for about half of the typical individual's total environmental exposure to ionizing radiation. Other major sources of radiation are diagnostic medical procedures, occupations in which there is exposure to substantial amounts of radiation or radioactive materials, and exposure to radon within the home.

**Environmental Pollution.** Determining direct cause–effect links between environmental pollution and cancer risk is problematic because of the large number and diversity of industrial chemicals being released into the environment today. In addition, the fact that most cancers have multiple causes presents researchers with the challenge of isolating specific effects of individual chemicals. Complicating the issue even more is the difficulty in assessing the amount of past exposure an individual has had to a particular pollutant that may have taken decades to adversely affect the individual. Finally, the number of people exposed to a particular carcinogen is usually quite small. Thus, a negative effect may either go undetected or be difficult to prove.

Despite these difficulties, it is widely recognized that human biological defenses are having great difficulty protecting against pollutants and that they are a cause of cancer. These include petroleum products, synthetic organic chemicals, and insecticides, as well as sometimes seemingly uncontrolled toxic waste dumps. Phil Brown (1987) coined the term **popular epidemiology** to describe the processes by which laypersons take the lead in gathering statistics and other information to understand the epidemiology of particular diseases. This type of action is now occurring throughout the country as communities are fighting corporate pollution and improperly handled toxic waste dumps that have been linked to higher rates of cancer in nearby residents.

**Other Factors.** About 5 percent of all cancers are strongly hereditary. In these cases an

inherited gene alteration confers a high risk for developing a particular type of cancer. For example, in the early 1990s, researchers identified genes that increased susceptibility to breast and ovarian cancers and that between 5 and 10 percent of these two cancers are genetically linked. In the next decade, research should be better able to identify the contribution of heredity to cancer.

### Trends

Two key trends in cancer are apparent. First, there has been some leveling off in the number of cancer deaths in recent years. The cancer rate nationwide has dropped since 1990, and the actual number of cancer deaths dropped in the early 2000s for the first time since 1930. The primary reason for the decrease is reduced lung cancer in men accompanying a reduction in cigarette smoking. (See Tables 4–2 and 4–3.)

A second trend is the increasing rate of survival for persons diagnosed with cancer. In the early part of the nineteenth century, few persons diagnosed with cancer had any likelihood of long-term survival. By the 1930s, about 20 percent of cancer patients survived at least five years. This percentage increased to about 25 percent in the 1940s, to 50 percent in the 1970s, to about 60 percent in the 1990s, and is now 68 percent. Table 4–4 shows the five-year survival rates for selected cancer sites for 1989 to 1995 and 2002 to 2008.

Improved survival rates are due to both early detection of cancer and improved treatment effectiveness. The probability of early detection and survival varies considerably according to the cancer's anatomic location. However, if cancer is still localized when detected, the survival rate for most types of cancer jumps to over 80 percent (American Cancer Society, 2013).

### HIV/AIDS

**Acquired immunodeficiency syndrome (AIDS)** is an infectious disease caused by the **human immunodeficiency virus (HIV)**. HIV

**TABLE 4–2 Cancer Death Rates by Site**

Year	Males by Site, per 100,000*						
	Colon & Rectum	Leukemia	Liver	Lung & Bronchus	Pancreas	Prostate	Stomach
1930	23.0	3.0	14.1	4.3	4.5	17.8	46.3
1940	32.8	5.4	10.5	11.6	6.8	27.4	40.1
1950	33.1	8.2	8.6	24.3	9.9	28.9	31.1
1960	32.9	10.5	7.2	43.5	12.6	29.3	21.8
1970	33.3	11.0	6.4	68.1	14.0	30.0	14.5
1980	34.2	11.2	5.8	85.3	13.2	33.3	10.6
1990	31.3	10.7	6.8	91.1	12.6	38.6	8.9
2000	25.5	10.3	8.0	76.8	12.1	30.4	6.4
2010	19.2	9.3	9.7	60.3	12.7	21.8	4.6

\*Per 100,000, age adjusted to the 2000 US standard population.

Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancer of the liver, lung and bronchus, and colon and rectum are affected by these coding changes.

Source: Based on US Mortality Volumes 1930 to 1959, US Mortality Data 1960 to 2010, National Center for Health Statistics, Centers for Disease Control and Prevention.

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**TABLE 4–3 Cancer Death Rates by Site**

Year	Females by Site, per 100,000*						
	Breast	Colon & Rectum	Lung & Bronchus	Ovary	Pancreas	Stomach	Uterus <sup>†</sup>
1930	30.1	27.1	2.6	4.4	3.8	35.2	36.3
1940	33.8	33.5	4.1	7.0	5.4	25.7	34.0
1950	31.9	32.3	5.8	8.9	6.8	17.6	26.2
1960	31.8	29.8	6.9	10.2	8.0	11.5	18.9
1970	32.2	26.9	13.3	10.6	8.6	7.1	13.1
1980	31.7	24.7	24.3	9.5	8.8	5.1	9.6
1990	33.1	21.0	37.0	9.6	9.3	4.2	8.0
2000	26.6	17.8	41.2	9.1	9.3	3.2	6.9
2010	21.9	13.3	38	8.1	9.6	2.5	6.7

\*Per 100,000, age adjusted to the 2000 US standard population.

<sup>†</sup>Uterus refers to uterine cervix and uterine corpus combined.

Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancer of the lung and bronchus, colon and rectum, and ovary are affected by these coding changes.

Source: Based on US Mortality Volumes 1930 to 1959, US Mortality Data 1960 to 2010, National Center for Health Statistics, Centers for Disease Control and Prevention.

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**TABLE 4-4** Five-Year Survival Rates (%) for Selected Cancer Sites

Site	1989–1995	2002–2008	Percentage
			Point Difference
Prostate	92	99	7
Female breast	85	89	4
Cervix uterus	70	68	–2
Kidney	60	71	11
Colon/rectum	61	64	3
Oral	53	62	9
Ovary	50	44	–6
Lung/bronchus	14	16	2
Pancreas	4	6	2

Source: American Cancer Society, *Cancer Facts and Figures—2013*, Atlanta, GA: American Cancer Society, 2013.

disables the immune system and enables normally controllable infections to overcome the body and ultimately kill the person. Unlike some other viruses, the human body cannot get rid of HIV.

Without treatment, persons who have contracted the HIV virus typically remain in a latent (asymptomatic) stage for up to 10 to 15 years and sometimes much longer. During this time, the person may show no symptoms but is capable of transmitting the virus to others. In fact, studies indicate that the virus may be 100 to 1,000 times more contagious during the first two months after infection. Because tests to identify the presence of antibodies in the body to HIV—the means by which exposure to the virus is determined—are not reliable for up to two months following exposure, these months represent a critical time for transmission.

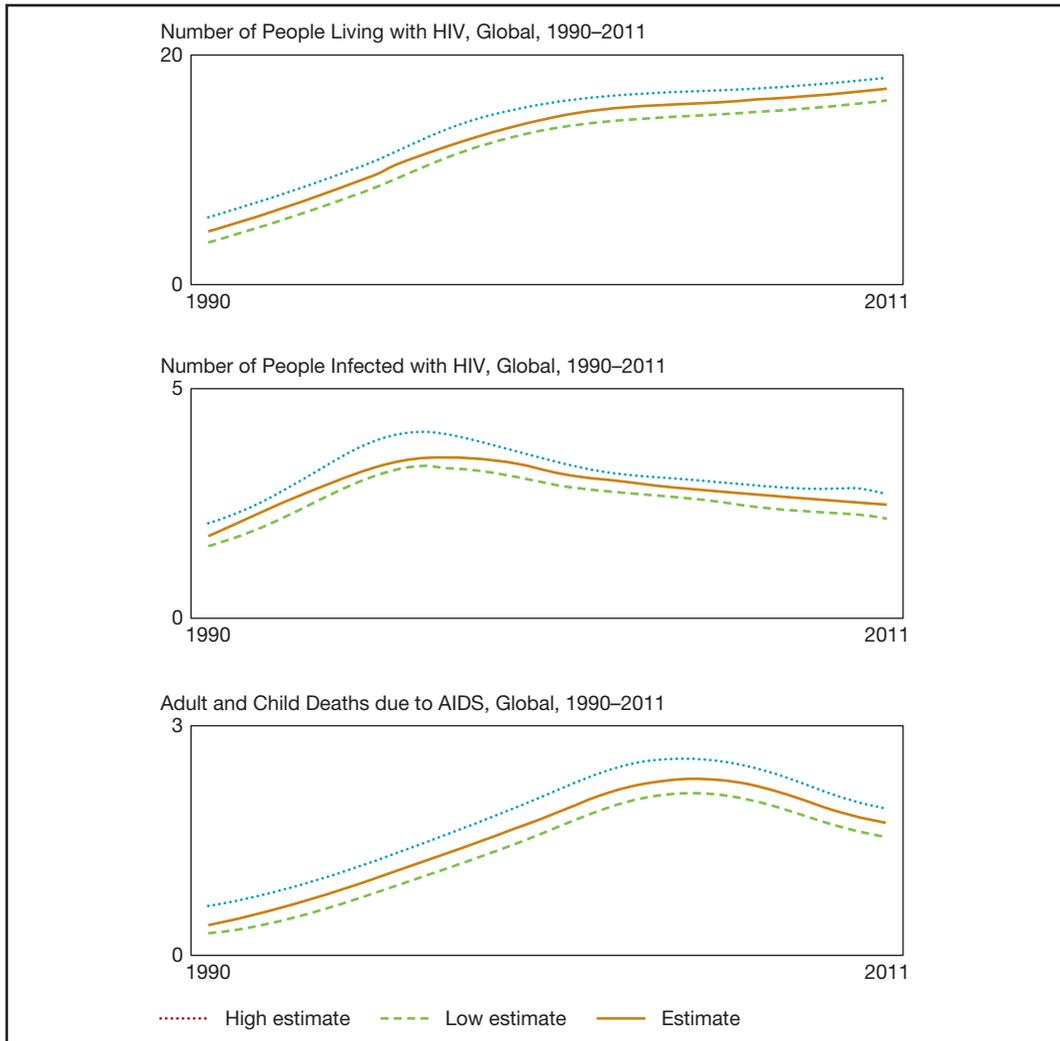
The transition to AIDS itself occurs when significant suppression of the body's immune system begins to lead to other medical conditions or diseases. Common among these are chronic, unexplained weight loss, chronic fevers, night sweats, constant diarrhea, swollen glands, and thrush (a thick, white coating on the tongue). As AIDS progresses, the patient typically experiences debilitating bouts of pneumonia, chronic herpes infections, seizures, and dementia, and, ultimately, death.

### Prevalence, Incidence, and Mortality

**A Global Pandemic.** In the late 1970s, HIV spread silently around the world, unrecognized and unnoticed. Although the first case was officially recognized in the United States in 1981, the vast scope of the infection was not realized until the mid-1980s. It is now considered to be a worldwide pandemic or plague. Although an accurate prevalence rate is difficult to determine, it is estimated that in 2011 approximately 34 million persons in the world were infected with HIV with 2.5 million more being infected each year. An estimated 1.7 million people died of AIDS that year. Altogether, more than 30 million persons have died from AIDS-related diseases (globally, AIDS is the fourth most common cause of death). Figure 4-1 portrays the global AIDS situation.

**HIV/AIDS in the United States.** Because AIDS has such a long latency period, and because most Americans have never been tested for exposure to the HIV virus, it is very difficult to calculate the number of persons who are HIV-positive. Epidemiologists use two estimation methods. The first method involves *back calculation*, taking into consideration the information available on incubation times and the change in trends of AIDS

Figure 4–1 Global HIV Trends, 1990–2011



Source: Data from *UNAIDS Data and Analysis*, 2013, Geneva, Switzerland: UNAIDS. [www.unaids.org/en/dataanalysis/](http://www.unaids.org/en/dataanalysis/).

incidence [all states are required to report AIDS cases to the Centers for Disease Control and Prevention (CDC)] to estimate the number of persons already exposed to the virus. The second method uses *seroprevalence* data (confirming the presence of antibodies to the virus) from CDC surveys of specific groups such as blood donors, civilian applicants for military service, childbearing women, ambulatory patients, and federal prisoners. By using both methods, the CDC estimates that approximately 1.1 million

Americans are currently infected with HIV (with more than 200,000 not knowing it). By the end of 2010, 636,000 persons in the United States had died from AIDS. New HIV infections peaked at about 150,000 a year in the mid-1980s but have decreased to around 50,000 annually since then.

About three-fourths of those with HIV/AIDS are male. The age categories in which diagnosis is most common are 40 to 49 and 30 to 39 (meaning that transmission occurred



## IN COMPARATIVE FOCUS

### *AIDS: THE KILLING FIELDS IN AFRICA*

The devastating effects of HIV/AIDS are taking the greatest toll on the world's less developed countries. While HIV rates have stabilized and/or declined in most developed countries and in an increasing number of developing countries (especially in sub-Saharan Africa and the Caribbean), they continue to escalate in many other some developing countries (especially in North Africa, the Middle East, Eastern Europe, and Central Asia). Today, 95 percent of persons infected with the HIV virus live in a developing country.

Historically, sub-Saharan Africa was the site of the greatest problems. In the early- and mid-2000s, 16 countries in the world—all in sub-Saharan Africa—had more than 10 percent of their population age 15 to 49 who were HIV infected. In South Africa and Zimbabwe, it was more than 20 percent.

In addition to its human toll, AIDS wreaks havoc on the entire social fabric of nations. Because most of those infected have acquired HIV by their twenties and thirties, a significant shortfall of workers and an increase in the number of people unable to financially support themselves occurred in these countries. Life expectancy dropped sharply. Millions of children were left without parents (more than 15 million children worldwide have lost one or both parents to AIDS). In some countries, there were more persons in their sixties and seventies than in their thirties and forties, meaning that there was inadequate support for the elders. Some countries experienced a significant drop in their national wealth.

Why did HIV/AIDS spread so rapidly in sub-Saharan Africa? Several circumstances had an effect. Many African men in rural villages form a migrant labor pool that migrates to large cities or mining areas or large commercial farming areas. Their wives typically remain at home to take care of the home and children. These long absences from home make common the use of prostitutes (most of whom are infected) or multiple sexual partners—thus increasing the opportunity for the virus to be spread. The desire

to have a large family led many men to be reluctant to use a condom when back home, which means that wives then became vulnerable to infection. In addition, health education programs were frequently unsuccessful leaving many rural areas where knowledge of HIV/AIDS was inadequate.

Finally, there was simply not enough money to provide necessary care. During this time, the United States spent almost \$900 million annually fighting about 55,000 new AIDS cases a year, while all of Africa spent about \$150 million fighting 4 million new cases a year. There was insufficient medicine in most of these countries and stark inability to pay for AIDS treatment. Despite the increasing effectiveness of drug combinations in reducing suffering and extending life, only about 2 percent of Africans with AIDS were getting treatment as late as 2003 and 2004.

In 2003 new efforts were initiated in the United States and around the world to commit more money to battling HIV/AIDS in the developing world. The United States pledged increased contributions (up to \$3 billion in 2004); the World Health Organization and the United Nations started a new program to bring antiretroviral drugs to those afflicted; the United Nations, the World Bank, the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and former President Clinton created a joint plan to buy and distribute inexpensive, generic AIDS drugs in poor countries; and actor Richard Gere with MTV and VH1 and two of India's largest entertainment networks began creating AIDS Awareness Programs.

Over the last decade, marked progress has been made. Globally, new AIDS cases have decreased almost 20 percent, and in sub-Saharan Africa, the decline has been 22 percent. AIDS-related mortality has decreased by 31 percent. Though not all sub-Saharan African countries have lowered the number of new infections or involved more patients in drug programs, others have made significant progress (Tucker, 2013).

around a decade earlier). Blacks and Hispanics constitute a disproportionate number of persons with HIV/AIDS, although there is no evidence that race per se is a biological risk factor for vulnerability to the disease. In 2010, blacks accounted for 44 percent of newly diagnosed HIV infections (though being only about 13 percent of the population); Hispanics were 20 percent of new cases (16 percent of the population). The death rate from AIDS is about three times higher for black males than for white males and more than 20 times higher for black females than for white females. Rates for Hispanic males and females were about 2 times and 3.5 times, respectively, the rates for their white counterparts. High rates of unemployment and despair in inner-city areas and associated drug use and less accurate knowledge about AIDS help to account for the higher rates among blacks and Hispanics (Centers for Disease Control and Prevention, 2013).

AIDS among children can be considered as two separate subepidemics because of differing modes of transmission: (1) Pediatric AIDS affects children from birth to 13 years of age, most of whom are infected through perinatal transmission of the virus from their mothers during pregnancy or birth (although transmission does not occur in most cases); and (2) teenage youth through age

19 are generally infected through the same transmission modes as adults. Beginning in the late 1990s, the number of perinatally acquired AIDS cases decreased significantly—a result largely of prevention interventions.

### Etiology

HIV is transmitted in the same basic way throughout the world: through the exchange of bodily fluids. This exchange may occur through coital, oral, or anal sex (the latter being a common means of transmission for gay men because the tissue of the rectal wall is very thin and easily penetrated by the virus); through the passing of HIV-contaminated blood (e.g., via a blood transfusion, a sharing of needles by intravenous drug users, and reuse of contaminated needles for medical injections); and from an infected mother to a child (either prenatally or through breastfeeding).

The three most common transmission methods in the United States are male-to-male sexual contact (53 percent), heterosexual contact (32 percent), and injection drug use (17 percent). Research has determined that HIV is more easily transmitted from men to women than the reverse, in part because the vagina is a more receptive contact surface than a man's penis.

Many organizations such as HIVictorious in Wisconsin work with young people in schools to promote awareness, prevention, advocacy, and community mobilization against AIDS. These posters were award winners in the “What If It Were You” campaign submitted by high school students.



## Trends

Predictions for the future of the HIV/AIDS epidemic in the United States are difficult both because it is too early to determine how effective the current educational strategy to change behavior will be on a long-term basis and because of the continuing development of new medical discoveries. While a vaccine to prevent AIDS does not seem imminent, significant progress in understanding the disease has occurred in recent years. Scientists are now studying people—perhaps as many as 5 percent of those with HIV—who show little or no signs of damage despite having had the virus for 12 or more years. Their source of resistance may point to clues in battling the disease. In addition, the discovery of the potential of new drugs and increased understanding of the benefits of drug combinations have extended the lives of those already with AIDS. While average life expectancy in the 1990s for someone with HIV in the United States was about ten years post-onset, by mid-2000, it was more than 20 years. With the introduction of new and more powerful antiretroviral drug therapy, there is anticipation today that life expectancy post-onset might reach 45 or more years for those starting the drug shortly after being infected. If that occurs, and with continued success in drug experimentation, it may be time to consider HIV as a controllable, chronic illness rather than one that is fatal. As one recent article asked in its title, are we at “The Beginning of the End of AIDS?” (Havlir and Beyrer, 2012). Nevertheless, some AIDS researchers caution that success should not be taken for granted.

To see an online interactive visual of the distribution of AIDS cases in the United States, go to Emory University’s site: [www.AIDSVu.org](http://www.AIDSVu.org).

## ALZHEIMER’S DISEASE

**Alzheimer’s disease (AD)** is a chronic degenerative, dementing illness of the central nervous system. It is the most common cause of **dementia**—a condition that involves personality change, emotional instability,

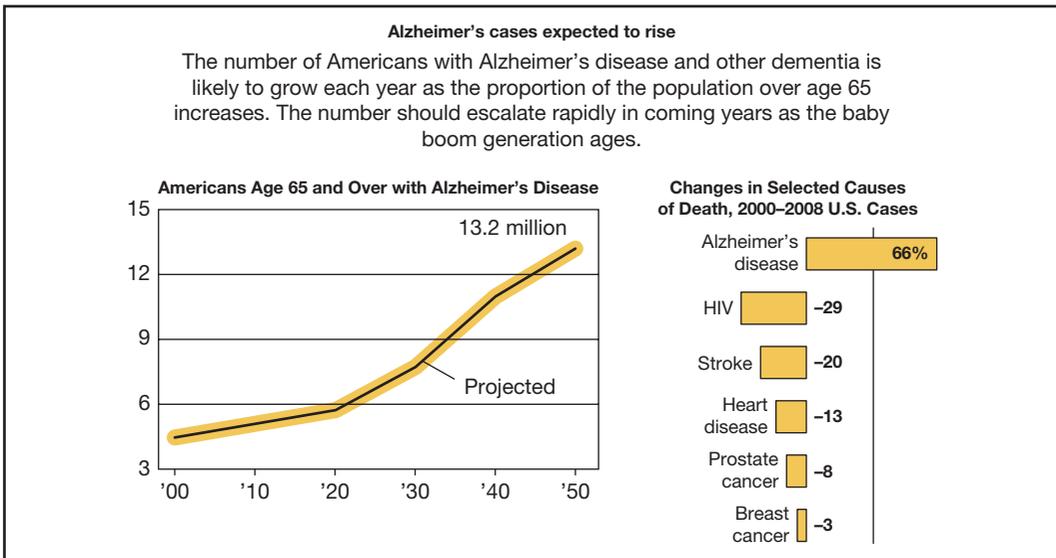
disorientation, memory loss, loss of verbal abilities, and an inability to care for oneself. Other specific symptoms of AD include intellectual impairment, depression, agitation, and delusions.

In order to diagnose AD, an extensive evaluation is necessary, which includes a complete medical history, interviews with the patient and family members, mental status examination, physical and neurological examination, and formal neuropsychological testing. Multiple clinical trials are currently under way to slow or stop the progression of AD. In 2007, researchers for the first time expressed some optimism that a drug to slow down or reverse the disease might become available within the next few years. However, at this time, there is no prevention, cure or treatment for Alzheimer’s—the only disease in the top ten leading causes of death in the United States for which that is true.

## Prevalence, Incidence, and Mortality

It is difficult to determine the prevalence of AD for a number of reasons. Because the onset of the disease is often extremely slow and the symptoms may go unnoticed or misinterpreted and because there is not any cure for the disease, many persons with Alzheimer’s may not have sought medical attention. That notwithstanding, it is commonly estimated that more than 30 million people worldwide have AD. In the United States, about 5.4 million people have it. About 1 in 20 persons age 65 to 74, about 1 in 5 persons age 75 to 84, and nearly half of those age 85 and older) have Alzheimer’s. More than 80,000 people die from Alzheimer’s each year—a number that is increasing. See Figure 4–2.

In addition to age, race has an influence on the likelihood of contracting Alzheimer’s. African Americans are almost twice as likely as whites to have Alzheimer’s and other forms of dementia, and Hispanics are about 1½ times more likely. The late-onset form of Alzheimer’s is most common among blacks. In 2013, scientists identified a new gene mutation that is linked to Alzheimer’s and is more common

**Figure 4–2** Number of Alzheimer's Cases

Source: Data from Alzheimer's Association, *Alzheimer's Facts and Figures*, 2013, Chicago, IL: Alzheimer's Association. [www.alz.org/alzheimers\\_disease\\_facts\\_and\\_figures.asp](http://www.alz.org/alzheimers_disease_facts_and_figures.asp).

among blacks. This finding has opened additional areas of research.

The progression of AD varies from person to person. On average, a person afflicted with AD lives for up to ten years or more before dying, though some persons have lived up to 25 years. Alzheimer's is now the sixth leading cause of death.

### Etiology

Although significant progress in understanding the cause of Alzheimer's has been made in the last few years, scientists do not yet know the exact cause. It is increasingly accepted that there is more than one pathway to having Alzheimer's. The two most promising lines of explanation today relate to two kinds of brain abnormalities. The first is a plaque comprised of beta amyloid that forms on brain cells. When the immune system activates to address the problem, the brain becomes inflamed. Over time, these plaques build up in the brain. The second abnormality is the presence of molecular

tangles inside brain cells, which can ultimately choke life out of the cells.

Researchers have now identified three genes that, when mutated, cause abnormalities in our brain cells. These mutations are inheritable, and virtually everyone who inherits one develops Alzheimer's by age 60. But later-onset Alzheimer's also has a large genetic component with individuals with one affected parent three times more likely to get AD, and those with two affected parents being five times more likely. However, it appears that the genes are not causative of AD; they simply make one more susceptible to it when exposed to certain environmental triggers. Much current research is focused on understanding these triggers, and researchers are making headway in finding a drug that could melt away the plaque.

### Trends

Projections indicate that, without an effective cure or preventive mechanism, the prevalence of AD will grow substantially in the next

50 years as the number of persons in the oldest age groups increases. By the year 2050, it is estimated that more than almost 14 million persons will have AD.

This trend will affect health care and the health care system in important ways. There will be a need for more caregivers for advanced cases and additional lines of support for spouses and other family members. Awareness of these needs in the medical community has increased dramatically in the last two decades and is largely a result of research and focus by sociologists and the efforts of a small number of dedicated neuroscientists, the National Institute on Aging (NIA), and the Alzheimer's Disease and Related Disorders Association (ADRDA) advocacy group.

Important financial consequences will also occur. Costs for Alzheimer's patients and those with other forms of dementia are expected to increase by 500 percent by 2050 to \$1.1 trillion annually. Because Medicare and Medicaid pay for approximately 70 percent of Alzheimer's costs, the financial stability of these programs will be challenged.

## MENTAL ILLNESS

It is difficult to define **mental illness** in part due to the sociocultural basis for determining what orientations or behaviors are indicative of a mentally ill person. Some conditions (e.g., homosexuality) that were once considered to be mental illness no longer are. Some conditions (e.g., having visions) that are considered as evidence of mental illness in some cultures are considered perfectly natural in others. Research even indicates that members of different cultures manifest very different symptoms in response to the same clinical psychopathology; for example, schizophrenics in some cultures are loud and aggressive, while in other cultures, they are quiet and withdrawn.

The most widely used classification system for mental disorders is the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)* (1994), prepared

by a Task Force of the American Psychiatric Association. It is the system used by mental health professionals, many social workers, the courts, and insurance providers. The *DSM-IV* assesses each disorder on the basis of the nature and severity of clinical symptoms, relevant history, related physical illnesses, and recent adaptive functioning especially with regard to the quality of social relations. *DSM-V* was published in 2013. The *DSM* is a very controversial document. Critics charge that its definitions of disorders and the ability of clinicians to apply the definitions lack validity because they are subjectively based. An example is the fact that homosexuality was listed as a mental disorder through the first two editions of the book. When a large number of members of the American Psychiatric Association (APA) challenged this perspective in the 1970s, the APA voted to delete homosexuality from the list of disorders. Critics charged that nothing "objective" about homosexuality changed—only its subjective interpretation. Horwitz (2007) contends that DSM diagnoses sometimes fail to distinguish between genuine individual pathology and entirely understandable distress from discouraging life experiences such as chronic subordination, the inability to achieve valued goals, and the loss of important attachments. Others posit that the *DSM* lacks reliability—that it is used inconsistently by different clinicians. Studies have shown that clinicians often disagree about diagnosis and do not uniformly attach defined conditions (Mirowsky and Ross, 1989). Studies that show that the race or gender of a patient influences diagnosis offer further evidence of a lack of reliability. The *DSM* is widely used and has some utility but carries with it some serious problems.

### Prevalence

Everyone has impairments in functioning or "problems in living" from time to time, and many people consult with mental health professionals such as psychiatrists, clinical psychologists, social workers, and marriage and family counselors about these problems. Most

are seeking help with marital or other family relationships, work-related problems, stress, or a lack of self-confidence. Some conditions are more intense, persist longer, and require more significant treatment.

A list of mental illnesses is as follows:

### Types of Mental Illness

Although mental illness can be categorized in a variety of ways, the most common mental illnesses include the following (Medline Plus, 2014; WebMD, 2013):

1. **Anxiety disorders**, the most common types of mental illness, describe an unusually grave form of fear or dread about certain situations. While everyone experiences anxiousness sometimes, these disorders refer to a persistently high level of anxiety that may result in a physiological change such as chest pains. Anxiety disorders include phobias (an abnormally intense level of fear about something that may be harmless), obsessive-compulsive disorders (behaviors that must be performed to avoid anxiety or respond to an obsession), and post-traumatic stress disorder (experiencing a traumatic event and then continuing to feel the trauma even after the event has ended).
2. **Mood disorders** (also called affective disorders) affect a person's day-to-day emotional state, and may manifest in lasting feelings of excessive sadness or hopelessness (**depression**), periods of extreme happiness, or fluctuations between the two (**bipolar disease**).
3. **Psychotic disorders** are severe mental disorders that involve abnormal thinking or perception. These include hallucinations (seeing or hearing things that are not real), delusions (believing things that are not true despite evidence to the contrary), incoherent speech, and **schizophrenia** (which may involve a combination of these symptoms).
4. **Eating disorders** involve a preoccupation with food and an irrational fear of being fat. Examples of these disorders are anorexia nervosa (self-starvation), bulimia (periods of overeating followed by purging), and cycles of binge-eating.
5. **Impulse control and addiction disorders** are manifest in individuals who cannot resist engaging in behaviors that may be harmful to them and they wish to avoid. These include kleptomania (stealing), compulsive gambling, and compulsive use of alcohol and/or other drugs.
6. **Personality disorders** refer to extreme and persisting personality traits that are distressing to the individual and typically cause problems interacting with other people. These conditions include paranoia (extreme distrustfulness of other people) and antisocial personality disorder (extreme and distressing personality traits that disrupt normal social functioning).

There are two major data sources on the prevalence of mental disorders. The first is a general population adult survey—the Baltimore Epidemiologic Catchment Area (ECA) program—that was conducted in five U.S. localities. It was conducted by the National Institutes of Mental Health in the early 1980s and has been supplemented by a series of additional national surveys in the years since then. The other study is the National Comorbidity Survey (NCS), which was a nationally representative household survey conducted in the early 1990s and its follow-up study in the early 2000s (Kessler et al., 1994, 2003).

Estimates of the prevalence of mental illness in the population were similar in the two studies. Both estimated that between 2 and 4 percent of the population had a severe mental illness and an additional 5 to 8 percent had a serious (but less severe) mental illness. Today, it is estimated that about 30 percent of the population experiences at least one mental disorder listed in *DSM* (not counting substance abuse) each year, and that about 40 percent of these disorders can be considered serious.

Most of these disorders are treatable, but estimates are that—because of potential stigma and financial concerns—only about one-third seek needed treatment.

Medical sociologists typically employ a “social consequences” approach in studying mental illness, that is, examining how social arrangements and social processes affect mental health and the likelihood of obtaining treatment for mental health problems (Aneshensel, 2005). Among the aspects of social structure commonly studied are socioeconomic status and race, gender, residence, and marital status. The accompanying box, “The Effects Of Neighborhood On Mental Health,” focuses on the effects of the neighborhood where one lives and mental health.

**Social Class and Race.** With the possible exception of anxiety and mood disorders, social science research has found the highest levels of psychological distress among socially disadvantaged groups. Rates of schizophrenia, personality disorders characterized mainly by antisocial behavior and substance abuse, and depression are highest in the lowest socioeconomic groups.

There are three possible explanations for the high prevalence of mental disorders among the poor. The *genetic* explanation asserts that genetic inheritance predisposes members of the lower class to mental disorders. This theory has not received research support. The *social selection/drift* explanation maintains that mentally ill persons may drift downward in the social structure or that mentally healthy individuals tend to be upwardly mobile, thus leaving a “residue” of mentally ill persons. While research indicates that mental problems do tend to prevent upward social mobility, it has not been found that they lead to downward mobility. A third explanation—*social causation*—posits that people in lower socioeconomic groups live in a social environment that is more stressful and that they are more vulnerable to the effects of this stress because

they lack the personal and financial resources to get needed help (Aneshensel, 2009). The economic deprivation, the dangerous physical environment, the less healthy lifestyle, and the unstable personal relationships that often accompany poverty all threaten mental health (Eaton, Muntaner, and Sapag, 2010). This approach has received the most empirical support, although none of these three explanations is totally satisfactory.

The relationship between race and mental health disorders depends upon the particular disorder being studied. Although blacks are more likely than whites to be in the lower socioeconomic strata, they do not have higher rates of mental illness and disorder (Williams, Costa, and Leavell, 2010). In cases of particular disorders in which rates for blacks are higher than for whites, socioeconomic status accounts for most of the gap (Spence, Adkins, and Dupre, 2011).

**Gender.** Unlike the clear differences between men’s and women’s physical health, the overall incidence of mental illness in men and women is about the same. However, the overall rates do camouflage differences in the likelihood of specific illnesses. For example, rates of mood and anxiety disorders—including depression—are consistently higher for women, and rates of personality disorders, substance abuse, and suicide are consistently higher for men (Bird and Rieker, 2008). These differences are due to both biological and sociocultural factors. Some research has focused on hormonal differences and chromosomal differences between women and men as explanatory factors for differential mental health, but evidence is insufficient to draw conclusions (Cockerham, 2010). On the other hand, it is known that differences in behavior are at least partially the result of socialization into prescribed roles for males and females. This pattern is examined in more detail in Chapter 5.

**Urban–Rural Differences.** The overall rate of mental illness is higher in urban



## IN THE FIELD

### *THE EFFECTS OF NEIGHBORHOOD ON MENTAL HEALTH*

Considerable research has found that neighborhood context has an important effect on psychological distress and mental health. Disordered neighborhoods, common in disadvantaged areas, may produce several psychological states in residents including anxiety, anger, depression, and subjective alienation—that is, a sense of separation between oneself and others. Often, this heightens one's sense of powerlessness and a mistrust of others. Ross (2011) has theorized that mistrust is likely to develop in neighborhoods where perceived threat is common and where resources to deal with the threat are scarce. A strong sense of personal control might be helpful in reducing the negative effects of this environment, but that orientation is often eroded by the environment. Feeling a sense of powerlessness and mistrust is in itself psychologically distressing.

These negative effects begin in childhood and carry through to later life. Because neighborhoods often are the limit of adolescents' social world, living in a violent and threatening neighborhood influences early on thoughts about self (self-efficacy) which in turn affects emotional health. Studies in disadvantaged neighborhoods find high levels of anxiety and depression among young people (Dupere, Leventhal, and Vitaro, 2012), and that these adolescent experiences can negatively affect cognitive health in later life. The negative effect (a faster rate of decline over time) has been linked especially to personal SES, that is, the decline was most apparent in those who themselves were poor in addition to living in a disadvantaged neighborhood (Aneshensel et al., 2011).

than in rural areas, but the differences are not great. Though rates tend to be especially high in central city areas, rural life does not protect one completely from the risk of mental illness. In fact, mood disorders are more common among rural residents than among those living in urban areas—possibly due to greater social isolation. On the other hand, schizophrenia, anxiety, and personality disorders are more prevalent among city residents. Schizophrenia is especially prevalent in inner cities, suggesting a link with social class. Other possible explanations may be the negative consequences of crowding and the stressful and competitive environment of urban areas (Cockerham, 2010).

**Marital Status.** Research consistently finds that married people experience better mental health than unmarried people, and that married men are even healthier mentally than married women. This is partially due to the

social and emotional support received from stable, supportive relationships that can serve to protect one from psychological consequences of difficult life situations. It may also reflect the fact that the mentally ill are less likely to be married, and thus the differences between levels of mental health are a result of a selection process rather than of marriage itself (Turner and Gartrell, 1978).

One recent study (Frech and Williams, 2007) discovered that both men and women who were depressed prior to their marriage experienced greater psychological benefits from marriage than those who were not. They postulate that the added emotional support and companionship of marriage and the reduction in social isolation by linking the person to a wider circle of friends and relatives cause this benefit. This benefit was significant for those who were depressed prior to the marriage but only modest for those who were not. All men and women experience greater benefits from a

marriage when it offers a high level of happiness and a low level of conflict. Thus, it should be understood that the benefits of marriage on mental health vary based on certain conditions and circumstances.

### Etiology

There are three primary approaches for understanding the etiology of mental illness: the biogenic or physiological approach (also called the medical model), the environmental or social approach, and a combination of the two, the *gene–environment approach*. The traditional biogenic view of mental illness is that it is an observable and measurable condition, stemming from individual psychological or biological pathology, which is amenable to proper treatment.

Many sociologists have challenged this way of thinking and support a social approach. They argue that definitions of mental illness rely more on subjective social judgments than objective facts. Thoits (1985) believes that the mental illness label is applied when a behavior is inconsistent with (1) *cognitive norms* (one's thinking is at odds with norms), (2) *performance norms* (one's behavior is at odds with norms), or (3) *feeling norms* (one's feelings are at odds with the range, intensity, and duration of feeling expected in a given situation). She believes that violations of feeling norms are the most common basis for labeling someone mentally ill.

Finally, a third school of thought advocates for a combination of the two approaches. Those supporting the *gene–environment approach* contend that neither biogenic nor social factors can be dismissed and that a comprehensive explanation requires both.

### SUMMARY

Understanding the causes and distribution of disease and illness requires attention be given to both fundamental causes (underlying social conditions) and proximate risk factors.

### Trends

Some sociologists who focus on the “sociology of mental health” have challenged the desirability of thinking in terms of clinical diagnoses at all and suggest that we focus on measurements that reflect the true range of human feelings and emotions. Mirowsky and Ross (2002:152) encourage a “human science” that centers on life “as people feel it, sense it, and understand it” and that includes consideration of human suffering even if it does not fall within preformulated diagnostic categories. Kessler (2002) also sees greater value in thinking in terms of dimensional assessments (placing each individual on a continuum of psychological distress without identifying a specific point at which a mental illness is established) rather than the traditional procedure of making categorical assessments (each individual either has or does not have a mental illness). These ideas have genuine potential for reshaping our whole approach to understanding human suffering and mental distress.

A positive development is that public discourse about mental health and mental illness is perhaps more open than ever before, and more people than ever seek treatment. Nevertheless, mental disorders continue to receive less public attention than physical ailments despite the very large percentage of people who experience some mental disorder each year. In the political arena, coverage of mental health services was a controversial provision in the failed Clinton health care reform package in the early 1990s and the successful Obama reform legislation of 2010. For some, providing for mental health needs lacked the legitimacy of providing coverage for other diseases. Perhaps the biggest battle yet to be won in treating mental disorders is convincing politicians and others of the vast importance of making these services available.

CVD and cancer account for over 1.3 million deaths annually in the United States. While the rate of CVD has decreased substantially in recent decades, it remains the number one killer

of Americans. Overall cancer rates continued to increase until the 1990s but have leveled off in the 2000s. Both diseases are influenced by fundamental causes and proximate risk factors. Cigarette smoking and diet are major risk factors for both diseases. High blood cholesterol, high blood pressure, and social stress are also major risk factors for CVD, while excessive consumption of alcohol and overexposure to the sun, radiation, and environmental pollutants, as well as occupational hazards, are key risk factors for cancer.

AIDS begins with HIV infection and is transmitted by body fluids through sexual activity, unsterile needles, infected blood supplies, and the placenta. AIDS is a major health problem around the world. To date, there are

no cures for the disease, although progress continues to be made in combining drugs to slow the progression of the disease. Alzheimer's disease (AD)—a disease of mental deterioration that begins in mid- to late life—also affects millions of persons in the United States. Recent significant advances in understanding the cause of AD have increased hope that a successful treatment may be found in the next few years.

Approximately one American in three experiences some form of mental disorder each year. Most types of mental illness are more common in lower socioeconomic groups. This is most likely due to conditions of lower class life including higher levels of stress and less access to necessary support.

## HEALTH ON THE INTERNET

Life expectancy varies considerably from state to state. In 2010 to 2011, residents of Hawaii (81.5), Minnesota (80.9), California (80.4), New York (80.4), Connecticut (80.2), Massachusetts (80.1), North Dakota (80.1), and Utah (80.1) had the longest life expectancies. Residents of Mississippi (74.8), West Virginia (75.2), Alabama (75.2), Louisiana (75.4), Oklahoma (75.6), Arkansas (76.1), Kentucky (76.2), Tennessee (76.2), South Carolina (76.6), and Georgia (77.1) had the shortest life expectancy. (You can check your state's average at [www.measureofamerica.org/human-development/](http://www.measureofamerica.org/human-development/).) What factors might plausibly cause the average

life expectancy to vary so much from state to state? Select five or six factors that you think might be most influential.

Then, go to the Web site: [www.americashealthrankings.org](http://www.americashealthrankings.org), which is put together by the United Health Foundation. First, click on "The Rankings" and then click on "State Rankings." Examine your home state on any state of particular interest. How many of your factors were examined? Then, click on the states with the longest life expectancy and the shortest life expectancy and compare and contrast their overall health participation. Now, what factors do you identify as being most related to life expectancy?

## DISCUSSION CASE

Consider the following issue related to social epidemiology:

The World Health Organization, the United Nations Programme on HIV/AIDS, the Centers for Disease Control and Prevention, and the United States Preventive Services Task Force have all recently called for routine HIV testing

without specific consent in all doctors' offices, clinics, and hospitals unless patients explicitly refuse. The WHO and UN have emphasized the importance of testing even healthy-looking individuals. They point out that this would lead to increased life expectancy for those who are HIV-positive (those diagnosed early

with the disease can now survive for decades while those diagnosed in the latter stages die within months) and reduce the likelihood that those who are HIV-positive but do not now know it (an estimated 200,000 more people in the United States) would pass the disease on to others (drugs have now reduced the likelihood of transmitting the disease by 96 percent). However, a significant backlash has occurred among people who do not wish to see pretest counseling eliminated and who say that the lingering stigma associated with

AIDS makes the risk of disclosure too great, especially when many people still cannot access treatment.

Address the following questions:

1. What are the individual and societal consequences of offering regular, routine HIV testing?
2. What values underlie the arguments for and against this proposal?
3. Should our society support/adopt this approach?

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# CHAPTER 5

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## *Social Stress*

### Learning Objectives

- Explain the process of social stress as presented in the stress model, including reference to social stressors, appraisal, mediators, and stress outcomes.
- Distinguish between life events and chronic strains as they impact social stress. Identify and explain the five key types of chronic strains.
- Apply the concept “social construction of reality” to the appraisal process.
- Identify and discuss the major ways that individuals use to cope with stress and social support to deal it.
- Explain how each of social class, race, sexual orientation, and gender can impact social stress.

There may be few health-related concepts that have captured both the research interest of scientific investigators and the popular imagination as much as “social stress.” This reflects both the substantive appeal of the concept for researchers in medicine and the biological and behavioral sciences and attempts by individuals to understand and take responsibility for their own health.

This chapter presents a brief description of the historical development of the concept, an introduction to the various ways that stress is conceptualized, and a model of social stress that attempts to capture its causes, mediating effects, and outcomes. Current research into stress as it is related to social class, race, and gender is also presented.

### DEFINITION OF STRESS

The term “stress” is used in almost countless ways. It can refer to events or circumstances, such as an examination, that cause us unease; to the general unease we feel during such events; to the specific bodily responses to such events, such as rapid heartbeat; or to the mind’s and

body’s attempts to deal with the unease in order to recapture a sense of wellness.

Most researchers include in the concept of stress some reference to the resulting state in an individual who has experienced various demands. Stoklos (1986:35) defines stress as “a state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the person’s capacity to cope with these demands.” Stress occurs in response to “strainful and threatening circumstances in the environment” and has clearer boundaries than states such as anxiety or depression, which are more global and more diffuse and may exist “even in the absence of specific threats” (Pearlin and Schooler, 1978:4).

### HISTORICAL DEVELOPMENT OF THE STRESS CONCEPT

The idea of stress has existed for centuries. As discussed in Chapter 2, such historical luminaries as Hippocrates believed in the humoral theory of illness—that positive health results from a mind and body in harmony—perhaps the earliest characterization of an individual who

is not “stressed out.” Hippocrates’ belief in the self-healing powers of the body is also consistent with an understanding of the body’s adaptation to stress.

Historical records indicate that in the fourteenth century, the term was equated with hardship and affliction, and in nineteenth-century medicine, stress was cited as a cause of ill health, as many diseases were attributed by physicians to conditions of “melancholia,” “grief,” or “despair.” Clearly, by the 1800s, there was widespread recognition of the link between mind and body.

Ironically, Pasteur’s demonstration that bacteria cause disease (the germ theory of disease) led many physicians and medical researchers to confine their attention to such germ-caused diseases in the hopes of finding specific disease etiology and appropriate “magic bullets.” In doing so, many abandoned interest in the less concrete areas of attitudes and emotions.

### Walter Cannon and Hans Selye

Early in the twentieth century, Walter Cannon, an American physiologist, used the term **homeostasis** to describe a state in which the body’s physiologic processes are in balance and are properly coordinated. He identified many highly specific physiologic (adaptive) changes made by the body in response to hunger, thirst, extreme cold, pain, and intense emotions.

Cannon described a “fight or flight” reaction: When circumstances offered opportunity for success (or there was no choice), humans would fight; in the face of overwhelming odds, humans sought flight. Physiologic changes such as sugar entering the bloodstream to provide quick energy, heavy breathing to provide more oxygen, and acceleration of the heart to provide more fuel and oxygen occur to enhance the individual’s reaction.

However, Cannon noted that while this resource mobilization was quite functional for early humans, today it is often activated when it is not really useful—a first date, for example—and may be harmful as it exhausts the individual.

Hans Selye, an endocrinologist at McGill University, is often cited as the classic figure in stress research. Hoping to discover a new sex hormone, Selye experimentally injected laboratory rats with hormones. Typical reactions were enlarged adrenal glands, shrunken immune systems, and bleeding ulcers. To confirm these effects, he injected nonhormonal substances into a control group of rats and surprisingly found a similar reaction. He realized the response was a general reaction rather than a substance-specific reaction. The physiological reaction was termed “stress,” and the trio of responses (alarm, adaptation, and exhaustion) was called the **general adaptation syndrome**.

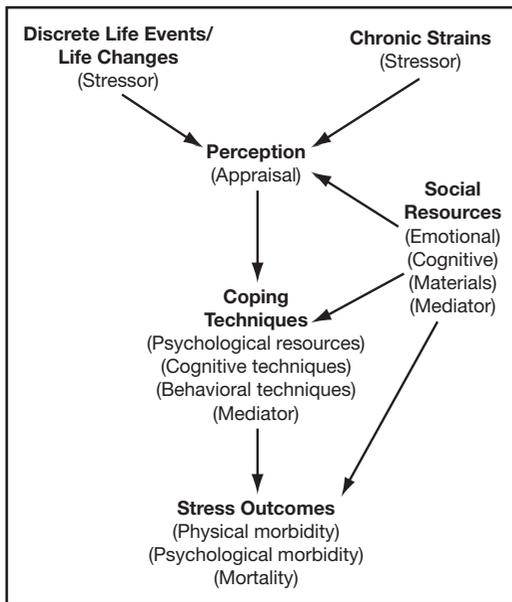
Based on this work, Selye eventually pinpointed a truth with which people could immediately identify: In our daily lives, we all experience stressful situations. These situations upset our body’s equilibrium—our homeostasis—and make us more susceptible to mild diseases and illnesses. If stressful situations persist over an extended period of time, the body’s resources become depleted and more severe disease or illnesses—or even death—may result.

### A MODEL OF SOCIAL STRESS

Several researchers have developed models to describe the processes involved in stress. The model presented in Figure 5–1 is influenced by several of these models but especially by Morton Lieberman (1982), Pearlin and Aneshensel (1986), and Pearlin and Bierman (2013).

While stress is a broad intellectual concept, this model highlights the importance of using the sociological perspective to understand the following areas:

1. The nature and dynamics of how social forces and circumstances (stressors) create stressful situations.
2. How the perception or appraisal of stressors affects the manner in which they are handled.
3. How the appraisal of stressors affects the enactment of social roles (and strain created in these roles).

**Figure 5–1** A Model of the Stress Process

- How social resources influence the likelihood of stressful circumstances occurring, the appraisal of these circumstances, the extent to which role enactment is problematic, the ability of individuals to cope and the coping mechanisms they use, and the extent to which the stressful circumstances result in negative stress outcomes.

## STRESSORS

A primary concern of many sociologists is the identification of stressors—social factors or social forces that contribute to stress. Cataloging these forces is a difficult task, however, as they range from the broadest of social forces and large-scale social organization (a macro perspective), on the one hand, to the personal social environments in which people function on a day-to-day basis (a micro perspective), on the other hand.

### Stressors and the Sociological Perspective

Attempts to understand human behavior must, of course, consider the importance of broader

social forces and social organization. A key insight of sociology is that all human behavior, even that which seems to be very individualistic, is shaped by larger forces in the social environment.

As an example, the French sociologist Émile Durkheim (1858–1917) helped stimulate interest in identifying ways that individual behaviors are shaped by larger social forces. In his book *Suicide*, first published in 1897 (trans. 1951), Durkheim focused on what might seem the most individual of human behaviors and described how it is influenced by social forces. Durkheim asked these questions: If suicide is an entirely personal, individual behavior, why do rates of suicide vary from social group to social group? Why are suicide rates higher among men than women, the unmarried than the married, and Protestants than Catholics? And why do patterns in suicide rates persist over time?

Durkheim found his answer in the extent and nature to which individuals were integrated into a group or society. On this basis, he explained suicide as being most likely either (1) when an individual is insufficiently integrated within a group and has few social bonds (e.g., an elderly person whose lifetime partner dies and who feels as if there is little reason to go on living), (2) when an individual so identifies with a social group that he or she is willing to sacrifice life for the group (e.g., a kamikaze pilot), or (3) when an individual feels a sense of normlessness during times when society's norms and values are undergoing upheaval or rapid change (e.g., during periods of rapid economic upturn or downturn). Durkheim's analysis is an excellent example of the **sociological imagination** (see Chapter 1). It is an ability to see how personal troubles (thoughts of suicide) are influenced by wider social forces (changes in the state of the economy or extent of social integration). This is the same perspective we take in understanding social stress. The box, "Are Cell Phones a Social Stressor: The Impact of Cultural Change," offers an example of individual lifestyle (and stress) being affected by a technological change.



## IN THE FIELD

### ARE CELL PHONES A SOCIAL STRESSOR? THE IMPACT OF CULTURAL CHANGE

Sociologists and psychologists are accustomed to describing life events and chronic strains as being key social stressors. Yet, macro-scale, global events and changes in culture and social structure, such as war and natural disasters, are also apparent causes of today's high and increasing levels of stress (Wheaton and Montazer, 2009). For example, research has shown a general elevation in perceived level of stress in the United States following the terrorist attacks in New York City on September 11, 2001 (Richman, Cloninger, and Rospenda, 2008).

Could a technological change as simple as the cell phone be part of stress-producing cultural change? Consider:

- 1. Cell phones are one example (but just one example) of the accelerating rate of new technologies within society.** Ask yourself what technologies exist in society today that did not exist when your parents were your age. Consider the fields of medicine, communication, information technology, transportation, and recreation. Changes within these areas and others represent some of the most transformative changes ever within our society.
- 2. Cell phones are a major contributor to peoples' constant accessibility and corresponding decline in privacy.** When the parents of today's 18- to 25-year-olds were in college, the most common form of communication back home was a personal letter and a common source of information was the hard copy (a term that did not exist) encyclopedia. With the speed-up in communication with e-mail, texting, tweeting, twittering, and social networking, we are now almost constantly "on." We can "connect" to almost anyone immediately, and we are constantly available to others. Information about anything is almost immediately available to us, and information about us is easily accessible by others. All of us have had the experience of having to listen in on loud individuals' cell phone conversations. Menzies (2005) in *No Time: Stress and the*

*Crisis of Modern Life* refers to this as the decline of the "face-to-face world" and the emergence of the "hyperworld." Agus (2011) asserts that technologies such as those on smart phones allow even very short periods of time to be productive or entertaining. By constantly keeping our brains busy with digital input, we are missing out on the benefits of down time—allowing the brain to process, to create, and even to rest.

- 3. Cell phones contribute to the compression of time and space.** Work occupies an increasing part of our lives, while leisure time diminishes. We feel pressure not only to do one thing at a time but also to multitask in order to accomplish things simultaneously. We need constantly changing images to retain our attention. Reading books has declined. Life is more fragmented. A comment from your bf may cause u 2 lol. Altheide (1995) states that "An increasing array of life is processed rather than lived, recorded rather than remembered and tracked rather than understood." Trying to keep up makes it difficult not to exceed your "optimal level of stimulation" (Blonna, 2007).

Does everyone experience cell phone technology in the same way? Not at all. The Pew Internet and American Life Project (Lenhart et al., 2010) reports that teens are far more likely to consider the cell phone an indispensable part of life. Four of five have slept with their cell phone; some keep it under their pillow to awaken for late-night texts. More than half of teens text every day, and teens average 1,500 text messages (sent or received) each month. (The average adult texts ten times per day.) One teen in four now accesses the Internet by cell phone, 54 percent record video, and 60 percent play music. Corresponding percentages for adults are far lower. The cell phone industry itself is not very popular with either adults or teens; it receives more complaints than any other industry. It is not clear whether adults or teens will be more likely to access a new Web site created by Consumers Union: [escapecellhell.org](http://escapecellhell.org).

## Types of Stressors

In recent years, sociologists have distinguished between two major types of stressors: specific **life events** and more enduring life problems called **chronic strains**.

**Life Events.** Life events are important specific events or experiences that interrupt an individual's usual activities and require some adjustment. A distinction is made between anticipated (or scheduled) life events (such as marriage, divorce, and the beginning or ending of a school year) and unanticipated (unscheduled) life events (such as the death of a loved one, a sudden failure, the sudden loss of a job, or learning of a terminal illness). Recent research has begun to explore the importance of anticipatory events—those that might happen in the future (for example, failing out of school or being a victim of a crime). The very anticipation of such events might in itself be a stressor.

In order to determine the effects of these specific life events on stress level, researchers have employed three kinds of techniques: (1) studies of the psychiatric effects of specific events such as reactions to combat and natural and human disasters, (2) comparison of the number and types of life events experienced by psychiatric patients prior to their hospital admission to those for a nonpatient control group, and (3) general population surveys examining the relationship between life events, stress, and illness. Researchers have developed a variety of specific scales to measure exposure to stressful life events. One popular scale—the Social Readjustment Rating Scale (Holmes and Rahe, 1967)—contains a list of 43 events that were evaluated by a panel of judges as to the level of readjustment that each required. The most stressful life events were identified as being the death of a spouse, a divorce, marital separation, and a jail term. At the other end of the scale were minor violations of the law, Christmas, vacation, and change in eating habits.

Does experiencing undesirable life events negatively impact health? Yes, and sometimes the event is traumatizing, but often the effect is not large, and, in most cases, it does not persist

over a long period of time. Researchers do continue to detect a relationship between adverse life events and certain depressive disorders (Dohrenwend, 2000), but the effects are not large and generally dissipate within three months (Avison and Turner, 1988).

**Chronic Strains.** The second major type of stressor—now often referred to as chronic strains—refers to the relatively enduring problems, conflicts, and threats that people typically face in their daily lives. The most common bases for these types of stressors are family problems with spouse, parents, or children; love or sex problems; problems on the job or in school; and problems in any site that involve competition. A meaningful way to organize these chronic stressors is to focus on problems that occur within the boundaries of major social roles and role sets. These are likely to be important problems because the relationships that exist in role sets are usually enduring. Because they also tend to be extremely important relationships (e.g., spouse, child, boss, and teacher), strains that develop are likely to be of great significance to the individual (Pearlin, 1989).

Pearlin (1989:245) uses the concept of “role strain” to refer to “the hardships, challenges, and conflicts or other problems that people come to experience as they engage over time in normal social roles.” The five most common types of role strain are discussed next.

**1. Role overload** occurs when the combination of all the role demands placed on an individual exceed that individual's ability to meet them. Within the workplace, there is evidence that work overload is most likely to be felt by those at opposite ends of the spectrum: salaried, white-collar workers and the least-skilled, blue-collar workers. For different reasons, both may feel little control over work demands—an important predictor of job stress. Excessive workload may also be experienced by the homemaker in overseeing house maintenance, food preparation, and child-rearing functions, as well as increasingly playing the caregiver role for parents



One of the leading causes of stress is time pressure: busy schedules with constant deadlines. In many cultures around the world, there is considerably less pressure than in the United States to overload schedules and to have constant meeting deadlines.

unable to live independently. Primary caregivers and those caring for elders with significant needs must often resort to taking unpaid leave, reducing work hours, rearranging their work schedule, or even leaving the workforce altogether.

Perception of role overload is also influenced by the level of economic return on one's labors. Brenner (1973) has shown that both the absolute level of economic reward and the perceived fairness with changes in the amount of reward influence level of stress. Teaching and nursing are good illustrations of careers that pay more than the national average but are stressful, in part, because the level of training required and the amount and intensity of work demanded are not always commensurately rewarded. Likewise, a frustration of many homemakers is that the value of their contributions is often not rewarded at all—either in monetary fashion or in terms of genuine appreciation.

**2. Interpersonal conflicts within role sets** include problems and difficulties that arise within complementary role sets, such as wife–husband, parent–child, and worker–supervisor, and are the types of strain that often touch people most deeply. Marriage (or engaging in a long-term relationship) is

typically the center of our most intimate relationships, the context of many of our most far-reaching decisions (e.g., children, major purchases, degree of equalitarianism), and the role set in which many spend the most time. Therefore, it has the potential for great bliss as well as significant interpersonal conflict. Rates of separation and divorce, emotional and physical abuse within families, and reported levels of marital dissatisfaction all reflect high levels of stress. Pearlin pinpointed one aspect of this conflict:

One of the more common elements of discord—and one of the more stressful—involves a breakdown in reciprocity. By reciprocity and its failure, I mean the sense of inequity people have about their marriages . . . people see themselves in marital relationships where . . . they invest more than their partner in the relationship, and are more considerate of their partners than they think their partners are of them. (1983:10)

Pearlin (1983) identifies other common sources of strain in marriages: (1) a perception that the spouse does not recognize or accept “quintessential” elements of one’s self—that he or she fails to authenticate what is judged to be an especially prized aspect of the self-image; (2) a belief that the spouse is failing to fulfill basic marital expectations such as

Sociological research increasingly shows that participation in positive social relationships with others is an important contributor to good physical and mental health and can play a significant role in recovering from illness.



wage earning or housekeeping; and (3) a feeling that the spouse is failing to provide even minimal levels of affection or that sexual relations are insufficiently satisfying. The lack of physical as well as emotional intimacy clearly relates to marital stress.

**3. Interrole conflict** occurs when the demands of two or more roles held by a person are incompatible, and the demands cannot simultaneously be met. On a small scale, genuine conflict occurs whenever any health care worker is “on call” and gets called in to the hospital just as he or she is about to participate in a family function (let’s say a one-showing only of a play or dance for which the youngest child has earnestly practiced for months). Being a responsible health care worker and being a loving parent are both very important roles, but on the night in question, the child will be disappointed. In a marriage of two persons equally dedicated to careers, an elderly parent or young child who requires significant attention during the day will force some resolution of an interrole conflict.

**4. Role captivity** is the term used by Pearlin to describe situations in which an individual is in an unwanted role—he or she feels an obligation to do one thing but prefers to do something else (Pearlin, 1983). A retired person who wishes to continue working and a person working who wishes to retire are both held in role captivity. A college student forced to attend college by parents and a college-age person who wants to go to college but cannot afford it are role captives. Anyone hating his or her job and longing for another is a role captive.

The captive situation can also occur within families. Feeling trapped in an unhappy marriage can be an extremely stressful situation. Sometimes children in families can be role captives as is illustrated by research by Fischer and her colleagues (2000) on the stressfulness of growing up in a family with parental alcoholism.

**5. Role restructuring** occurs in situations in which long-established patterns or expectations undergo considerable restructuring.

Pearlin (1989) offers such examples as a rebellious adolescent who desires more independence; an apprentice who grows frustrated with his or her mentor as the craft is learned; and adult children who must take on increased responsibilities for aging parents. He notes that the transition can be more difficult when it is forced by circumstances (rather than voluntary effort) and when the transition involves some redistribution of status, privilege, or influence over others. Stress in the workplace seems to be increasing, and part of the explanation for this is anxiety over the possible loss of job (as businesses downsize) and rearranged job responsibilities (to make up for the reduced staff size).

Of course, not all chronic stressors can be related to problems in carrying out one's roles. Pearlin (1989) also refers to "ambient stressors" to identify those that do not attach to any particular role. An example would be living at someplace that is too noisy.

Three final points about chronic strains deserve attention:

1. Chronic strains are a more powerful determinant of depressive disorders and other health problems than are discrete life events. Their persistence, emergence in important areas such as marriage and work, and presence throughout the course of each day give them powerful force within our lives.
2. Valid and reliable measurement of chronic strains (like life events) is complicated. For example, it may be difficult to determine the actual "chronicity" of a strain. Interpersonal conflict within a marriage can rarely be represented as a linear phenomenon—it often ebbs and flows, sometimes swinging back and forth between bliss and misery, and does so with very uneven degrees of intensity. How then does one accurately measure the length of time for which discord has occurred?

Moreover, the specific array of stressors being faced undergoes change during the life course—what is very stressful to an early teen would typically be far different than what is

confronting someone in the later years. Plus, stressors may accumulate over time so that determination of the consequences of any single stressor becomes more difficult. What may seem rather straightforward to measure is actually quite complex (Kessler, Price, and Wortman, 1985).

3. Life events and chronic strains may accumulate over time and often overlap. The occurrence of specific life events may alter the existence or meaning of chronic strains. An example is the effect of sudden job loss (a discrete life event) on division of labor within the household (possibly a chronic strain). Moreover, life events may create new strains or magnify existing strains, as might occur if the sudden job loss created marital discord (Kessler, Price, and Wortman, 1985; Pearlin, 1989).

## APPRAISAL OF STRESSORS

### Appraisal and the Sociological Perspective

Within sociology, **symbolic interactionism** is a micro-level perspective that focuses on small-scale, everyday patterns of social interaction. Symbolic interactionists believe that social life is comprised of a myriad number of episodes of daily social interactions in which people communicate verbally and nonverbally and engage in a constant process of interpreting others' messages and responding to these interpretations. According to symbolic interactionism, the world is not so much imposed upon the individual, dictating or strongly influencing behavior, as it is created by the individual through the exchange of these verbal and nonverbal symbols. Berger and Luckmann (1967) assigned the term **social construction of reality** to identify this pattern.

A classic example of the symbolic interactionist perspective is found in the work of W.I. Thomas (1863–1947). Thomas recognized that individuals are affected by events only to the extent to which they are perceived. In other words, neither life events nor chronic strains are in and of themselves stressful. They are simply situations or occurrences in which the likelihood of a stressful response is increased.

It is the perception of these events and their interpretation—what an individual believes the implications of the events/strains to be—that is stressful. The **Thomas Theorem** is often summarized as “if situations are defined as real, they are real in their consequences.” It is the perceived world; whether it is perceived accurately or not, that becomes the basis for response (Thomas and Thomas, 1928).

**The Appraisal Process.** Whenever any potentially stressful life event or chronic strain occurs, we immediately evaluate or appraise its significance for us. We may attempt to recreate the circumstances that surrounded some similar event in the past and recall how it affected us then or attempt to systematically remember anything that we have heard or read about the event. We may ask ourselves: Have I ever handled anything like this before? If so, what happened? Can I get through this on my own? Do I need help? Who can help?

This is done in order to determine the likely consequences of the event for us. If those are negative, we will likely calculate how much damage has already occurred and what threat for additional damage remains. We may assess the availability of resources to help deal with the event. We will calculate the stressfulness of the event not only in absolute terms but also relative to whatever helping resources are available.

The appraisal process does not involve the “real” event, but the individual’s *perception* of the real event. To the extent that perceptions differ, individuals will respond differently to the same “real” circumstances. Being laid off from a job may be perceived by some as a tragic event; others may view it as an unsolicited step in searching for a better job.

## MEDIATORS OF STRESS: COPING AND SOCIAL SUPPORT

The same stressful circumstances do not lead to the same **stress outcomes** in all people. Other factors exist that modify the stressor–stress outcome relationship. These additional factors are referred

to as **mediators** of stress; they are so identified because research has demonstrated their potential to influence or modify (i.e., mediate) the effects of stressors. This section concentrates on coping and social support, the two types of mediators that have received the most attention.

### Mediators and the Sociological Perspective

Several sociological concepts and perspectives contribute to an understanding of the mediating role of coping and social support. A classic illustration of the way the social environment influences our self-image (and, thus, our feelings of confidence in dealing with social stress) is Charles Horton Cooley’s (1864–1929) theory of the **looking-glass self**. Cooley illustrated the way that reality is socially constructed by describing the process by which each person develops a self-image. According to this theory, we come to see ourselves as we believe other people see us. Consciously or subconsciously, we attempt to interpret how we are viewed by others (and the judgment being placed on that view), and we gradually develop a self-image consistent with what we perceive (Cooley, 1964). If I believe people with whom I interact see me as a very humorous person, I will likely see myself that way. However, if others never laugh at my jokes and convey to me that I need a sense-of-humor transplant, I’m not likely to see myself as being very funny.

### Coping

**Coping** refers to personal responses people make to prevent, avoid, or control emotional distress and includes efforts to (1) eliminate or modify the stressful situation so that it will not be a continuing problem, (2) control the meaning of the problem, by “cognitively neutralizing” the situation, and (3) control the stress created by the situation (e.g., through stress management techniques).

**Specific Coping Techniques.** There are three types of specific coping techniques: psychological resources, cognitive techniques, and behavioral techniques.

1. *Psychological resources* are “the personality characteristics that people draw upon to help them withstand threats posed by events and objects in their environment” (Pearlin and Schooler, 1978:5). Three such characteristics have received the most attention:
  - a. Individuals with positive feelings about self—*positive self-esteem*—have been shown to cope better with stressful situations. This may be due to greater self-confidence, a feeling that one is held in high regard by others (recall Cooley’s looking-glass self), and a real or perceived assessment of one’s previous ability to handle the stressful situation (Thoits, 2013).
  - b. Individuals with a feeling of being in control, controlling their own destiny, and being able to master situations (i.e., *internal control*) have been shown to cope better with stressors than individuals who see themselves as being less competent and who believe that their life is controlled by luck, fate, or outside others (i.e., *external control*). People who have a high sense of mastery of situations are less likely to report negative stress outcomes (Gadalla, 2009; Ross and Mirowsky, 2013).
  - c. Individuals characterized by a trait referred to by Kobasa (1979) as **hardiness** are better able to handle stress. Hardy individuals exhibit a strong commitment to work, family, friends, and other causes and interests; accept change as a challenge rather than as a foe; and have a feeling of personal control over life (internal control).
2. *Cognitive techniques* involve the assignment of specific interpretations to a stressful event in order to control its meaning (i.e., to neutralize its stressfulness). In light of some potentially stressful event, one might respond by denying that the event is happening or by telling oneself that the event is not as crucial as it might seem, that it will be over soon, that it might even be a good challenge, or that other people have been in this situation and survived. Many people rely on their spiritual beliefs or participation in religious activities to help find meaning in uncontrollable life events.
3. *Behavioral techniques* can also be used to help cope with a stressful event. Individuals might focus on developing and implementing a plan to reduce or eliminate the stressor. Some individuals use biofeedback or yoga or other meditative techniques to help reduce stressfulness (research supports the health value of these techniques); many persons try to get their mind off the object of despair by engaging in some alternative, distracting activity, such as listening to music, engaging in some physical activity (increasingly, exercise is shown by research to be an especially helpful mediator of stress—both in the short and long terms), or using alcohol or some other drug. More than one of our students has resorted to the old adage, “When the going gets tough, the tough go shopping.”
 

Are all coping techniques equally effective in all situations? No. Research has shown that different coping techniques are most effective in different situations. Most people use different coping techniques in different situations (e.g., in parental versus marital situations), and different people effectively use different coping techniques in the same situation. The larger and more varied one’s coping repertoire, the more likely that individual can cope with any stressful situation. In general, however, problem-focused strategies that deal directly with the stressor lead to more positive health outcomes than strategies that include mentally distancing oneself from the stressor, wishful thinking, self-blame, and simply emphasizing the positive (Penley, Tamaka, and Wiebe, 2002). Individuals who have effective coping strategies develop confidence in their ability to deal with stressors and experience fewer uncontrollable events and more controllable events in their lives (Thoits, 2006).

Several interesting studies have been conducted of the specific kinds of coping techniques used in specific circumstances. For example, Schwab (1990) identified five primary coping strategies used by married couples who had experienced the death of a child: (1) seeking a release of tension through talking, crying, exercising,

and writing about the death, (2) concentrating on avoiding painful thoughts and feelings by engaging in diversionary activities such as work around the house, (3) cognitively dealing with the situation by reading materials on loss and grief, (4) helping others and/or contributing to a cause, and (5) relying on religiously based beliefs that their child is in a better place and that the family will someday be reunited.

### Social Support

Social support refers to resources people receive from their social relationships and social networks and their membership in groups (Blonna, 2007). This support may be (1) emotional (e.g., caring and concern), (2) cognitive (e.g., information and advice), or (3) material (e.g., child care and transportation). While the extent to which persons are integrated into families, friendship networks, occupational or school groups, and religious and civic groups varies, research confirms that social support is an extremely important mediator of the effects of stress.

**The Effect of Social Support on Stress and Stress Outcomes.** People who perceive positive social support tend to have better physical and mental health and are better able to adjust to such events as loss of spouse, unemployment, serious illness, and criminal victimization. Conversely, persons who feel they are isolated (i.e., who feel lonely and do not have social support) or who feel socially disconnected (i.e., who have a small social network and infrequently participate in social activities) experience higher levels of physical and mental health problems (Cornwell and Waite, 2009). Two primary models have been developed to explain this relationship.

The **main effects model** asserts that social support contributes directly to well-being and positive health and that these beneficial effects occur even in the absence of stress. The overall sense of well-being that social support provides, the feeling of being accepted, the knowledge that others care and are available, and the degree of comfort within one's social environment may

contribute to inner feelings of contentment and outer expressions of good health.

The alternative model, the **buffering effects model**, asserts that the beneficial effects of social support occur only in the presence of stress. By acting as a buffer, social support may decrease the likelihood of negative stress outcomes occurring as a response to high stress levels. The support offered by others, according to this model, provides some sense of security and confidence that stressful circumstances can be handled and, perhaps, even that specific assistance in handling the situation will be available. Research has shown that people with larger social networks and with stronger ties to those in their networks are better able to avoid illness and to recover from it (Smith and Christakis, 2008).

While research findings are not completely consistent, the wealth of evidence shows that both types of effects occur—that social support does contribute directly to positive health, and it serves an important buffering effect in times of high stress.

There is evidence that coping techniques and social support work together in mediating stress. Yang (2006) focused on the increase in depressive symptoms among older adults as they became more functionally limited. The adults who had positive self-esteem and a sense of control (coping mechanisms) and who had a confidant and were satisfied with their social support (social support mechanisms) best handled the decline in functional abilities.

Recent sociological research has raised cautions about a decline in social support that people today have available to them. McPherson, Smith-Lovin, and Brashears (2006) studied the number of close friends and confidants that people have today compared to two decades ago. In 1985, the average American had three persons in whom to confide, and only 10 percent had no confidant. In 2004, the average number of confidants had decreased to two, and almost 25 percent had no close friend. Given that social support is one of the key mechanisms for preventing and dealing with stress, the decline in the number of persons with readily available support is worrisome.

Finally, the complexity of the relationship between social support and stress must be emphasized. Often, it is impossible to disentangle stressors and their mediators. This is something of a “double whammy”—certain circumstances both add to the stressfulness of life and detract from available social support at the same time. For example, much research has confirmed the stressfulness of unemployment and its relationship to depression. However, research has demonstrated that unemployment carries an extra burden: Following job loss, social support from spouse and fellow workers often diminishes. At the very instant when social support is especially needed, it becomes less readily offered. Thus, the psychological distress traditionally tied to job loss may actually be due to both job loss and the reduction in social support that often accompanies it (Atkinson, Liem, and Liem, 1986).

## STRESS OUTCOMES

In one sense, identification of specific “outcomes” or “ills” of stress is remarkably simple: All of us can relate various ailments we have suffered with stress. In another sense, however, making specific linkages can be quite difficult because stress leads to a wide variety of outcomes through a wide variety of pathways. In any case, it is clear that when one’s level of stress cannot successfully be mediated through coping and social support, negative stress outcomes are likely to occur.

In attempting to bring some order to the variety of ills produced by stress, Brown (1984) suggested the following categorization:

1. *Bona fide emotional disturbances* include anxiety, insomnia, tension headaches, neuroses, phobias, hysterias, and hypochondriasis and are major factors in aging, sexual impotency, alcoholism, drug abuse, sleep disorders, and learning problems.
2. *Abnormal behaviors* such as compulsive behaviors, aggression, withdrawal, criminal activities, battered child/spouse/parent syndrome, and sexual deviation. Some research

is now beginning to examine “road rage” and other types of rage as a response to accumulated stress.

3. *Psychosomatic illnesses* such as hypertension, coronary heart disease, ulcers, and colitis.
4. *Worsening of genuine organic illnesses* such as epilepsy, migraine, herpes zoster, coronary thrombosis, and rheumatic arthritis.

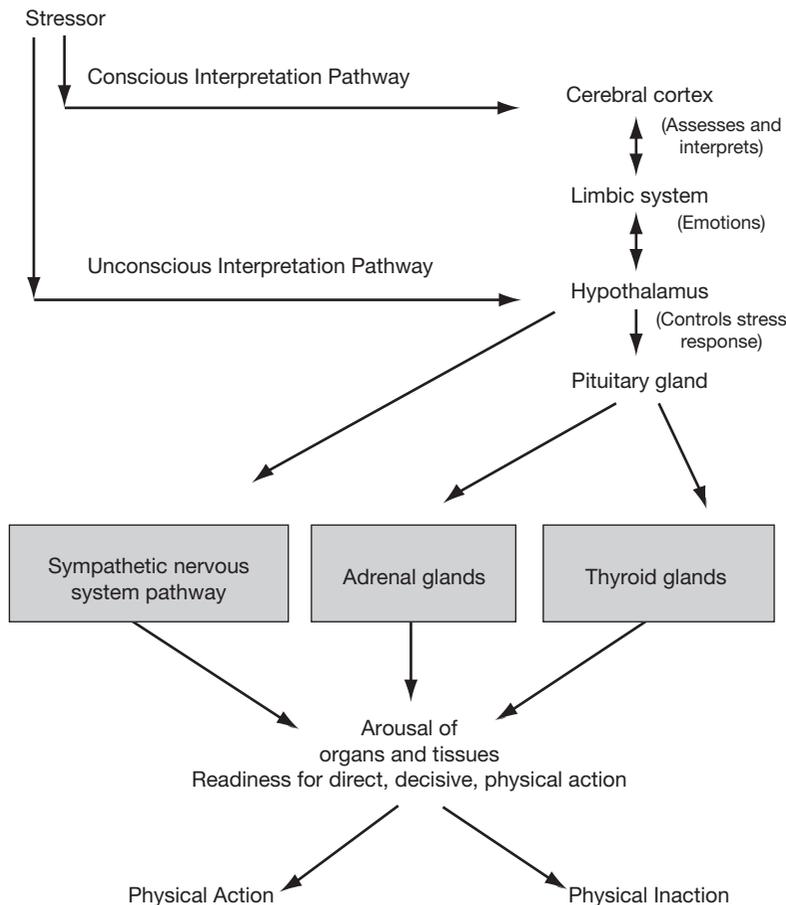
Grouped somewhat differently, we might say that unchecked stress increases the likelihood of psychological morbidity (e.g., anxiety and depression), physical morbidity (e.g., coronary heart disease and cancer), and mortality (Pearlin and Aneshensel, 1986).

## Pathways Between Stress and Disease

Stress responses may be produced voluntarily or involuntarily (see Figure 5–2). A sudden noise or other unanticipated event works through the hypothalamus in the brain (the center of primitive and automatic responses), which stimulates the sympathetic nervous system (and the larger brain system), which arouses the body for action. The cerebral cortex then evaluates the genuine danger presented by the stressor and determines whether the state of arousal is necessary.

The pathway for voluntary responses begins in the cerebral cortex, which assesses and interprets the stressor, and then moves through the limbic system (the center of emotions) and the hypothalamus to the pituitary gland, which activates the adrenal glands and thyroid gland to secrete hormones to trigger the body’s stress response (if that is judged to be appropriate by the cerebral cortex).

The specific responses made by the body include a sharp increase in blood pressure and increased respiration (to increase the availability of oxygen), an increase in blood sugar (to provide energy for muscles), increased muscle tension (to enable quick applications of strength), a release of thyroid hormone (to speed up metabolism for energy), a release of cholesterol in the blood (for endurance fuel), and a release of endorphins (the natural painkillers of the body). Ultimately, stress may lead to disease through

**Figure 5–2** The Physiological Pathways of the Stress Response

Source: Clint Bruess and Glenn Richardson. *Decisions for Health* (4th ed.). (Dubuque, Iowa, IA: Brown and Benchmark Publishers, 1995).

the wearing down of bodily organs, through a weakening of the body's immune system, or through the development of health-impairing behaviors (e.g., increased cigarette smoking or alcohol consumption) in reaction to stress.

### THE ROLE OF SOCIAL CLASS, RACE, SEXUAL ORIENTATION, AND GENDER IN SOCIAL STRESS

#### Social Class

People in the lower social classes have higher rates of psychological distress and mental health problems than the more affluent. This may

be due especially to educational differences. People at higher education levels tend to have higher paying and more fulfilling jobs with more mental challenge and work autonomy and tend to have more economic resources. They also have a greater sense of personal (internal) control and more cognitive flexibility (training and ability to figure out solutions to problems) (Mirowsky and Ross, 2003).

Considered in another way, there are two primary explanations for this pattern. The first, the **exposure hypothesis**, states that lower class people are exposed to more stressful life experiences than those in the middle or upper classes, that higher rates of distress are a logical result of

this exposure (Lantz et al., 2005), and that these stressful experiences (such as economic strain) are of the type that accumulate over the course of one's life (Pearlin et al., 2005).

For example, living in a neighborhood in which there are abundant social stressors such as crime, harassment, and various forms of disorder and decay has been shown to increase distress and ultimately to lead to negative health outcomes (Hill, Ross, and Angel, 2005). Individuals living in areas with high industrial activity may stress about the industrial pollution and hazardous wastes to which they are exposed and feel a sense of powerlessness in not having the financial resources to relocate (Downey and Van Willigen, 2005).

Research has also supported an alternative explanation, the **vulnerability hypothesis**, which states that stressful life experiences have a greater impact on those in the lower class and a greater capacity to lead to negative stress outcomes (Turner and Lloyd, 1999). This greater vulnerability has been traced to three factors: inadequate financial resources, greater use of ineffective coping strategies, and less access to social support networks (McLeod and Kessler, 1990).

First, lower socioeconomic status (SES) persons not only experience more of several stressful life events (e.g., job instability and loss, chronic health problems, and poorer quality of housing) but, by definition, also have fewer financial resources available to deal with these problems. For example, purchasing health insurance might be recognized as a partial solution to health care worries, but financial limitations may eliminate this option.

Second, people from the lower social classes are less likely to have psychological traits (such as high self-esteem, internal control, and confidence in dealing with stressors) that buffer stress, and they are more likely to use ineffective coping strategies (such as avoidance) in responding to stressful situations. These patterns may be linked to socialization experiences. For example, growing up in a family unable to secure needed health care may encourage feelings of powerlessness and external control.

Finally, aspects of living in the lower class may reduce the likelihood of establishing or

maintaining supportive social resources. While evidence is mixed on this point, it does appear, for example, that lower-SES persons are less likely to have a confidant in whom they can rely.

## Race

For more than 30 years, research has demonstrated that African Americans have higher rates of psychological distress than whites. A key question is whether this difference can solely or largely be attributed to an economic disparity or whether race exhibits an independent effect on stress level. In other words, do low economic status and racial discrimination contribute individually to stress levels?

Some research on racial differences has supported the position that the higher rates of distress in blacks are due entirely, or almost entirely, to economic differences. Much research has pointed out that the effects of social class on many outcomes (e.g., educational attainment and financial achievement) vary depending on one's race and that social class and race may both contribute to higher levels of distress. Kessler and Neighbors (1986) posited that racial differences in distress might be largest in the lower class (especially with competent blacks whose aspirations have been thwarted by discrimination) or in the upper class (especially with financially successful blacks feeling status inconsistency). Their analysis of eight studies (a pooled sample of 22,000 respondents) determined that race continues to be an important predictor of distress even when class is controlled, and that blacks experience more distress than whites at all levels of income. Considerable recent research has shown that perceiving racial discrimination is highly stressful and that the heightened stress does increase the likelihood of negative health outcomes (Grollman, 2012; Meyer, Schwartz, and Frost, 2008; Sellers et al., 2003).

Furthermore, some research continues to find that blacks respond differently than whites to stressful situations (Brondolo et al., 2009). For example, research continues to show that black women are more likely than white women to encounter unfair treatment in their everyday life

(Schulz et al., 2000) and to experience hypertension as a result.

On the other hand, there is evidence to support the pattern that blacks are more likely than whites to have access to social support. The group solidarity that often exists among members of minority groups may have important stress-buffering effects (Lincoln, Chatters, and Taylor, 2003; Lopez et al., 2012). In addition, having a strong sense of ethnic identity (e.g., strong group pride and cultural commitment to the group) can be a buffer to the stress of racial and ethnic discrimination and help to prevent negative health outcomes (Mossakowski, 2003). This may help explain the pattern that blacks often evidence higher levels of stress than whites, but not higher levels of mental disorder.

### Sexual Orientation

In the last two decades, an increasing number of studies have focused on the physical and mental health status of Lesbian, Gay, Bisexual, and Transgendered (LGBT) persons and on the role of social stress in their health. Although research samples have often been small, research has found that sexual minorities have more physical and mental health problems than heterosexuals. Several scholars have identified the stress associated with being a minority group member in a heteronormative society as underlying these health differences.

Ueno (2010) has identified six specific mechanisms that contribute to this greater stress.

1. Being more likely to experience physical and sexual victimization
2. Being more likely to experience discrimination (including name-calling and job discrimination)
3. Being more likely to experience negative life events (including job loss and friend dissolution)
4. Being more likely to experience chronic strains (including arguments with parents)
5. Being more likely to experience a deficiency in psychosocial resources (including family rejection)

6. Being more likely to experience a deficiency in psychological resources (including lower self-esteem and possible internalization of others' homophobia).

The path by which these mechanisms may affect sexual minority individuals has been studied by Green (2008). He found that urban, gay males faced significant stressors in their everyday lives including avoidance by others, stigmatization, and rejection. These stressors led directly to lowered self-esteem, a perceived lack of social support, and a decrease in feelings of personal control, and they led to greater feelings of anxiety and depression.

**Gender.** Women have higher rates (perhaps double) than men of psychological distress and depression. As Rosenfield (1989:77) summarized, these differences are found “across cultures, over time, in different age groups, in rural as well as urban areas, and in treated as well as untreated populations.” Consistently, these differences are greater among the married than the unmarried, though distress is greater in women regardless of marital status.

As important as this pattern is in sociological analysis and clinical application, only recently has significant attention been focused on women as subjects in stress research. This lack of attention has been especially obvious in the area of occupational health research, where early research on women was often conducted primarily to secure a better understanding of men's stress. The consequence of this inattention is that much remains to be learned about the bases of the high rates of distress in women.

A wide variety of plausible explanations for the gender disparity in stress have been advanced and tested:

1. Women are exposed to more discrete, stressful life events than are men. This differential exposure hypothesis has not been supported in most research. However, some research has highlighted the importance of the fact that women are much more likely than men to fill the caregiver role and to be affected

- by it, and Keith (1993) found that the higher levels of distress in older women (compared with older men) are due to their greater likelihood of having financial problems.
2. Women include more people in their social network, care more about these people, and are more emotionally involved in the lives of people around them. As such, they are more apt to feel stress when others in their network are feeling stress (Kessler and McLeod, 1984). Women are more likely than men to be both providers and recipients of support, though both men and women rely more on women for support during stressful times. While married women use both spouse and friends as confidants, married men tend to rely on their wives (Edwards, Nazroo, and Brown, 1998).
  3. Women are more vulnerable than men to stress due to their socialization to respond more passively, to introject rather than to express anger, and to use less effective coping skills (Kessler and McLeod, 1984). There is some research to support this notion. In a study of coping techniques used by college students, male students used more problem-focused coping (cognitive and behavioral attempts to control the meaning of the situation) while female students were more likely to use emotion-focused coping (attempting to regulate emotional responses elicited by the situation). Both male and female students rated the problem-focused techniques as being more effective (Ptacek, Smith, and Zanas, 1992). Countering this research is the fact that women appear to cope with many crises as well as or better than men (e.g., women typically deal better with the death of a spouse, with financial difficulties, and with marital separation and divorce).
  4. Continuing power differences between women and men in society and within families lead to the gender disparity in distress. Rosenfield (1989, 1992), focusing on married couples, has argued that women's relative lack of decision-making power within the family and the lesser resources and decreased prestige attached to the conventional feminine role of housewife cause and reflect this power differential. How does this affect psychological state?
- Low power implies less actual control over the environment and thus lower perceptions of personal control. With diminished assessments of their ability to act on and affect their social world, individuals experience greater psychological distress. Thus . . . women have higher rates of anxious and depressive symptoms because their positions of lower power produce lower actual control and thus lower perceived control than those of men (Rosenfield, 1989:77–78).
5. A final perspective on this issue asserts that the size of the gender disparity in social stress has been exaggerated and misinterpreted. Aneshensel, Rutter, and Lachenbruch (1991) argue that most stress research has focused on a single disorder or stress outcome and then has assumed that those who have this disorder are victims of stress and those without the disorder are not. For example, much of the research that has found that women report higher rates of depression than men has concluded that women experience more stress. However, they argue that most research has focused on outcomes that are more common in women and neglected to study antisocial personality and alcohol abuse–dependence disorders that are more common among men. If the full gamut of stress outcomes is considered, women and men may be found to experience comparable levels of stress.
- Gender, Work, and Psychological Distress.** An important implication of these explanations is that women's different levels and types of participation in the workplace create conditions that lead to the gender disparity in distress. This suggests an avenue for study: comparing women who are full-time workers outside the home (both married and unmarried) with those who are employed part-time and those not employed outside the home. If it is simply a matter of "social roles," then the benefits and liabilities of working should be the same for men and women. If, on the other hand, the effects of employment are conditional on

gender (a sex-role perspective), then other factors related to expectations for men and women must be involved (Gore and Mangione, 1983).

Studies addressing these questions have not always produced a coherent picture. Some research has found a reduced disparity in gender distress when the wife is employed, but other research has not. Moreover, some of the research that identifies smaller differences traces them to increased distress in males rather than a decrease in females. Most research has pointed to positive effects for women who work outside the home, but other research has failed to find differences between employed women and housewives. Even when such a difference is discovered, both groups of women have higher distress scores than employed men. The box, “Does Marriage Lead to More or Less Stress,” adds to this discussion.

Efforts to sort through these research findings have produced three primary perspectives: role overload, role enhancement, and role context. The **role overload** perspective is based on the proposition that there is only so much time and energy in the day. When women couple homemaking, child rearing, and full-time employment responsibilities, there is role overload—too much work and too many responsibilities—an obviously stressful situation. The same combination of activities may not overload males since they engage in considerably fewer homemaking and child-rearing activities—even

when their spouse is employed. Because many women feel primary responsibility for household obligations, and many men do not, it can be more psychologically distressing for women to occupy the multiple roles of spouse, parent, and worker. A recent study of dual-career couples in the United States, Sweden, and the Netherlands found that working women in all three countries do more household chores and child care and make more compromises with their job than do their husbands (Gjerdingen et al., 2000).

This same pattern exists relative to work positions that extend beyond specified hours. Does the frequency of receiving work-related contact outside of normal work hours (potential interrole conflict) create guilt for individuals? Yes, but for women only. Such contact does not lead to feelings of guilt or distress for men, but these consequences do occur for women—a gendered difference in the way that home and work responsibilities are experienced (Glavin, Schieman, and Reid, 2011).

The **role enhancement perspective** asserts that the more roles any person fulfills, the greater are the opportunities for social contacts, satisfactions, and self-esteem, and consequently, better health and psychological well-being (Hong and Seltzer, 1995). According to this theory, feelings of anxiety or depression ought to be inversely related to the number of role involvements. This may occur directly or indirectly as contacts made



## IN THE FIELD

### ***DOES MARRIAGE LEAD TO MORE OR LESS STRESS?***

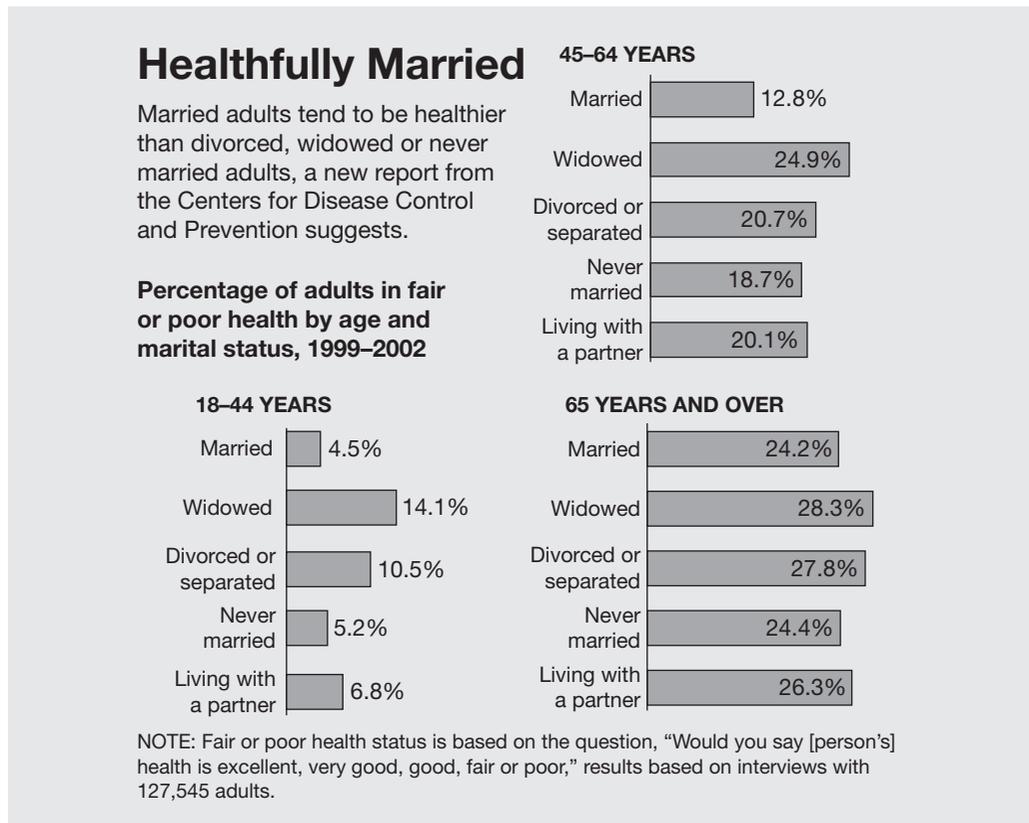
Married people report less stress than those who are not married (see Figure 5–3).

Compared to married adults of the same age, those who are single, cohabiting, divorced, or widowed all have higher levels of psychological distress, anxiety, and depression. (Only very young married adults are an exception: They report as much depression as their unmarried counterparts.) This relationship is strong and

cannot be explained away by a selection factor (that those higher in well-being are more likely to get married) (Mirowsky and Ross, 2003).

Why does this occur? The most important reason is that married people have higher quality, more supportive relationships. They receive more emotional support—a greater sense of being cared about, loved, esteemed, and valued as a person. Although there is

Figure 5–3 Marital Status and Health



Source: Centers for Disease Control and Prevention. “Marital Status and Health: United States, 1999–2002.” Advance Data, Number 351 (Atlanta, GA: Centers for Disease Control and Prevention, 2004).

much variation, in general, they are happier in their personal relationships. Married persons are also more likely to experience economic well-being and less likely to experience economic hardship or crisis (Mirowsky and Ross, 2003).

Is it better to be happily single than unhappily married? Yes. Studies show it is healthier to live alone than with a partner who does not provide supportive qualities. One 12-year study found that happily married women in their 40s and 50s were less likely to develop heart disease and strokes than their single counterparts, but that single women were less likely to develop these conditions than the unhappily married (Troxel et al., 2005). Over the last few decades, the health of single

individuals has gotten closer to that of married persons, while the health of the widowed, divorced, and separated relative to the married has gotten even worse (Liu and Umberson, 2008).

Do men and women benefit equally in health from marriage? No. While both benefit, men benefit more. This is largely due to three reasons: (1) Women feel greater child-rearing stress because they often have primary child-rearing responsibility, (2) women more often experience work–family conflict because they have more child-rearing responsibilities whether or not they are employed outside the home, and (3) wives tend to provide more emotional support to husbands than husbands do to wives.

through employment often become the most important nonkin source of social support for women who work outside the home.

The third perspective, **role context perspective**, asserts that employment outside the home has neither inherently positive nor negative consequences on stress level but rather is dependent on particular factors within the personal, family, and work environments and on the “meaning” that is attached to work and familial roles (Simon, 1997). What are these additional factors?

1. ***The woman’s desire to work outside the home.*** Waldron and Herold (1986) have demonstrated the importance of attitude toward the effects of employment. Based on a national sample of middle-aged women, they found that for women who desired to work outside the home, employment had beneficial effects and nonemployment had detrimental effects. No specific effects were noted for women who were unfavorable or neutral toward outside employment.
2. ***The woman’s perception of the balance of benefits and liabilities in outside employment.*** The greater the “role integration”—the balance of role satisfaction and role stress within and between roles—the greater is the sense of well-being. This is related to the number of roles. Thoits (1986) posits a curvilinear relationship between number of role involvements and well-being; that is, there is role enhancement up to a certain threshold whereupon role overload begins. Well-being is also affected by the compatibility of the work role with other roles (e.g., child care), the extent to which each can be handled, and the amount of spousal support received for the work career. Spousal support is jeopardized, however, if husbands are distressed by their wife’s outside employment—something that often happens when the husband’s relative share of the household income decreases or demands that his contribution to household domestic labor increase (Rosenfield, 1992).

Bird (1999) discovered that inequity in the division of household labor creates more stress than does the actual amount of labor

performed. Her research confirmed that women continue to do a greater percentage of household chores, and that husbands’ contributions were about what they desired, but that wives’ contributions went beyond the point of maximum psychological benefit. This may explain why there are health benefits to women who work, but that these benefits diminish when work is combined with care of a young child (Schnittker, 2007).

In addition, perception of the trajectory of one’s work career (does one perceive career movement in an upward or downward direction and does one perceive responsibilities and compensation to be appropriate for one’s position?) affects work satisfaction and ultimately affects health. Both objective and subjective occupational mobility predict health patterns: upward mobility is associated with better health, and downward mobility is associated with worse health. But perception in mobility is the better predictor (Wilkinson, Shippee, and Ferraro, 2012).

3. ***Qualities of the work environment itself.*** Because women, on average, occupy lower level work positions than men, they are subject to greater stress relative to work conditions, sexual harassment, and job instability. These positions often offer little work autonomy or control and have less work complexity. Work complexity involves the amount of variability on the job and is an indicator of its degree of challenge, its level of interest, the extent to which it is psychologically gratifying, and the likelihood that it will contribute to the individual’s self-esteem (Pugliesi, 1995). These job factors are related to higher levels of psychological distress. Workplaces in which gender discrimination is perceived add another important source of stress for women that has been linked with negative health outcomes (Pavalko, Mossakowski, and Hamilton, 2003).

However, over the last two decades, the proportion of women who work has increased, and women have moved in larger numbers into professional, managerial, and high-skilled

positions. These positions offer higher salaries, better benefits, and more work control. All of these factors are health beneficial. Yet, at the same time, pressures on workers to work longer hours, be more productive, and work nonstandard schedules have also increased. This may have led to some changes in the background of women who choose to stay home to rear children full time, thus further complicating this relationship (Pavalko, Gong, and Long, 2007).

According to Rosenfield (1989), women's employment does provide them greater power

and a greater sense of personal control. These are health enhancers. However, something else occurs simultaneously—something that occurs with lesser intensity for men—and that is the likelihood of role overload when work responsibilities are added to being the primary household/child caretaker. This role overload decreases feelings of personal control—a health negater. The complex maze of possibilities within this configuration of roles will require substantial additional research to be fully understood.

## SUMMARY

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Stress has been defined as “a state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the person's capacity to cope with these demands.” The configuration of the stress process can be stated in this way: Various stressful situations (or stressors) occur and are appraised by the individual as to their degree of threat. Individuals are forced to cope with those involving some threat; stressors that are unsuccessfully resolved lead to negative stress outcomes. Throughout the process, social support can help mediate the stress–stress outcome relationship.

Stressors are of two basic types: specific life events and chronic strains (the latter being more enduring problems in everyday life). Pearlin has classified chronic strains according to problems created in discharging our role obligations: (1) role overload, (2) interpersonal problems within role sets, (3) interrole conflict, (4) role captivity, and (5) role restructuring and to ambient stressors—those that are enduring but not tied to occupancy of a particular role.

Interpretation and appraisal of stressors are key aspects of the stress process. It is the

perceived threat, rather than the actual threat, to which a person responds. If a threat is perceived, the individual may activate certain coping responses (psychological, cognitive, and behavioral techniques) from his or her repertoire and also use social support. Negative stress outcomes occur through the individual's taking on certain health-impairing behaviors, such as cigarette smoking, or through specific psychophysiological changes including a weakening of the immune system.

Certain groups have higher rates of psychological distress: those with less income (who are exposed to more stressful life events and have fewer resources to combat them), African Americans, and females (possibly due to women being exposed to more stressful life events, caring more about others' problems, being especially vulnerable to stress due to the effects of socialization, and responding to having less access to power within families and within society). Employment affects stress level differently for women than men; this may be due to the fact that women often maintain primary responsibility for household tasks and child rearing, even when they are in the labor force.

## HEALTH ON THE INTERNET

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A significant trend in the United States is the rapidly increasing number of households that are caring for elderly relatives (often taking

them into their homes). More than 44 million Americans (more than one in five) provide this caregiving today, and the number is expected

to increase in the coming years. This trend is a consequence of both the increasing number of people living into their eighties and nineties, often with limitation on their ability to care for themselves, *and* the very high cost of assisted living and nursing home care.

To learn more about the relationship between caregiving and social stress, check out the following:

<http://www.womenshealth.gov/publications/our-publications/fact-sheet/caregiver-stress.cfm#b>

Answer the following questions: How is caregiver defined? Who provides caregiving services? What activities do caregivers often provide? What is **caregiver stress**? What can caregivers do to prevent stress and burnout?

## DISCUSSION CASE

The stress process as it relates to racial and ethnic minorities and women was discussed in this chapter. Think about social stress as it relates to racial and ethnic minorities and female students at your college or university. Are racial/ethnic minority and/or female students more likely (or less likely) to face any particular stressful discrete life events than those faced by all students? Are racial/ethnic minority and/or female students more likely (or less likely) to face any of

the five sources of chronic strain (role overload, interpersonal conflicts within role sets, interrole conflict, role captivity, and role restructuring) or ambient stressors than those faced by all students?

Do racial/ethnic minority students cope with stress or use social support differently than other students? Do female students cope with stress or use social support differently than male students?

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# CHAPTER 6

## Health Behavior

### Learning Objectives

- Identify and define the key dimensions of “health.”
- Identify and distinguish among the four dimensions of health behavior: prevention, detection, promotion, and protection.
- Explain the difference between a “macro” and a “micro” approach to understand participation in health behaviors. Discuss these factors as they relate to engaging in adequate physical exercise or smoking cigarettes.
- Distinguish between the Health Belief Model and the Theory of Reasoned Action in the factors emphasized as being important influences on participation in health behavior.

In the last few decades, medical sociology, like the medical profession and society in general, is focusing more attention than ever on health and health-related behaviors. This focus has produced some important questions. What does it mean to be “healthy” or “well”? To what extent do people engage in behaviors that will promote health or prevent disease—or, at least, not engage in health-damaging behaviors? What are the strongest influences on participation in these positive and negative health behaviors? How do society and culture encourage living a healthy or not healthy lifestyle? To what extent should public policy attempt to regulate health-enhancing and health-harming behaviors?

### THE CONCEPT OF HEALTH

Most clinicians and laypersons have come to understand that health is a broad-based concept that is comprised of several dimensions. John Ware (1986) reviewed the literature of studies on health and identified six primary orientations (or dimensions) used by researchers:

**1. Physical functioning.** A focus on physical limitations regarding ability to take care of

self, being mobile, and participating in physical activities; ability to perform everyday activities; and number of days confined to bed.

**2. Mental health.** A focus on feelings of anxiety and depression, psychological well-being, and control of emotions and behaviors.

**3. Social well-being.** A focus on visiting with or speaking on the telephone with friends and family and on number of close friends and acquaintances.

**4. Role functioning.** A focus on freedom of limitations in discharging usual role activities such as work or school.

**5. General health perceptions.** A focus on self-assessment of current health status and on amount of pain being experienced.

**6. Symptoms.** A focus on reports of physical and psychophysiological symptoms.

### The Biomedical Focus

The traditional **biomedical definition of health** focuses solely on an individual’s physiological state and the presence or absence of symptoms of sickness. **Health** is defined simply as the

absence of disease or physiological malfunction; it is not a positive state, but the absence of a negative state—if you're not sick, you're well. According to Wolinsky (1988), the biomedical model makes four primary assumptions that limit its utility for completely understanding health and illness:

1. The presence of disease, its diagnosis, and its treatment are all completely objective phenomena—symptoms and signs provide accurate and unbiased information from which valid diagnosis can unfailingly be made. However, this assumption is faulty. For example, studies have found that individuals' cultural background affects not only reaction to symptoms but also how these symptoms are reported to physicians and that the presentation of symptoms can influence diagnosis (Mechanic, 1980).
2. Only medical professionals are capable of defining health and illness. In reality, however, both the patient and his or her significant others are involved in the process. While one must not discount the power that society has granted to physicians for defining health and illness, a great deal of diagnosing and treatment occur outside the physician's office.
3. Health and illness should be defined solely in terms of physiological malfunction. In fact, people are not merely biological beings; they are also psychological and social creatures, and state of health is affected by all three aspects.
4. Health is defined as merely the absence of disease. This focuses attention on the malfunctioning part of the organism but excludes the rest of the positively functioning being. Thus, much may be learned about disease, but little is known about health.

### The Sociological (Sociocultural) Definition of Health

Sociologists typically consider all six dimensions in defining health and emphasize the social and cultural aspects of health and illness.

This approach focuses on an individual's capacity to perform roles and tasks in everyday living and acknowledges that there are social differences in defining health.

#### Capacity to Perform Roles and Tasks.

Objecting to the biomedical definition, Talcott Parsons suggested that health be viewed as the ability to comply with social norms. He defined health as "the state of optimum capacity of an individual for the effective performance of the roles and tasks for which he has been socialized" (Parsons, 1972:173). Note the almost completely opposite orientation of this definition to the biomedical approach: No assumption is made that disease can be objectified; the focus is much broader (and more socially relevant) than mere physiological malfunctioning; the individual's own definition of his or her health is given centrality (rather than the physician's definition); and the definition is stated in positive terms. According to this approach, health is not just the lack of something—it is a positive capacity to fulfill one's roles; it is not just a physiological condition—it includes all the dimensions of individuals that impact social participation.

#### Social Differences in Defining Health.

Twaddle (1974) sees health as being defined more by social than physical criteria. He views health and illness as being on a continuum between the perfect state of health and the perfect state of illness (death). While "normal" health and illness fall somewhere between the two extremes, what may be considered a healthy state for one person may be considered unhealthy by another. Perception of health is relative to one's culture (e.g., being 10 pounds overweight is suggestive of ill health in some cultures but is socially approved in others) and one's position in the social structure (e.g., back pain that may cause a salaried worker to miss a day of work might be ignored by an hourly wage worker) and is influenced by social criteria.

Research has demonstrated that social factors do influence how individuals define personal health status. For example, data from the

Health and Lifestyle Survey, a national survey of men and women living in England, Wales, and Scotland, show that personal definitions of health vary by age, gender, and perceived level of health (Blaxter, 2010). Younger men conceptualize health in terms of physical strength and fitness, while their female counterparts are more focused on energy, vitality, and the ability to cope. Older men and women consider health in terms of function as well as a state of contentment and happiness. Women of all ages often include social relationships in their definitions, while men rarely do so.

### The World Health Organization Definition

The World Health Organization takes an inclusive approach by defining health as a state of complete physical, social, and mental well-being and not merely the absence of disease or infirmity. This definition suggests that health relates to one's ability to cope with everyday activities and to being a fully functioning human being—physically, socially, and emotionally. In this sense, health is a resource for everyday life. It is a positive concept emphasizing social and personal resources as well as physical capacities (World Health Organization, 2013).

## HEALTH BEHAVIOR

When medical sociologists first began to study **health behavior**, they conceptualized it as an activity undertaken by a person believing himself or herself to be healthy for the purpose of preventing health problems. In recent years, sociologists have recognized that health behavior actually consists of several dimensions and types of activities. Alonzo (1993) has identified four separate dimensions:

1. **Prevention.** The goal of preventive health behavior (prevention) is to minimize the risk of disease, injury, and disability. These “health-protective behaviors” (HPBs) include participating in regular exercise, maintaining a favorable weight and healthy

diet, not smoking, and obtaining immunizations against communicable diseases.

2. **Detection.** **Detection** involves activities to detect disease, injury, or disability before symptoms appear and includes medical examinations (such as taking the blood pressure) or screenings for specific diseases.
3. **Promotion.** **Health promotion activities** consist of efforts to encourage and persuade individuals to engage in HPBs and avoid or disengage health-harming behaviors.
4. **Protection.** **Health protection activities** occur at the societal rather than the individual level and include efforts to make the environment in which people live as healthy as possible. Doing this involves monitoring the physical and social environments in which people live; physical structures and infrastructures; systems of transportation; available food, air, and water; places of work; and developing social and economic policies that permit and encourage good health.

## DESCRIBING INDIVIDUAL HEALTH BEHAVIORS

### Prevention

**Health-protective behaviors (HPBs)** are individual actions taken to protect, promote, or maintain health. These actions are both prescriptive (e.g., eat a nutritious diet, wear a seat belt when in a car, and get adequate exercise) and proscriptive (e.g., avoid unsafe driving, smoking, and excessive alcohol consumption) in nature.

Today, the primary gauge of participation in healthy lifestyles is the **Behavioral Risk Factor Surveillance System (BRFSS)**, a survey conducted by the Centers for Disease Control and Prevention in conjunction with the states and territories. The survey consists of annual household telephone interviews conducted by state health departments. Participation in several key health-related behaviors is presented in Table 6–1.

What is the summary picture of participation in healthy lifestyles for American adults? Very poor. Most Americans eat a poor diet (high in sugar, salt, and trans fats and low in fruits and

**TABLE 6–1** The 2000 and 2011 Behavioral Risk Factor Surveillance System for 50 States and DC

Behavioral Risk	Percent Participating	
	2000	2011
Current smoker	20.0	21.2
Overweight/obese	61.6	63.5
Consume too few fruits and vegetables (2009 data)	76.9	76.6
Too little exercise (less than 150 minutes of aerobic exercise per week)	78.2	79.2
Heavy drinkers		6.6
Binge drinkers		18.3

Source: Centers for Disease Control and Prevention (CDC), *Behavioral Risk Factor Surveillance System Survey Data*, Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2013.

vegetables) and get too little physical exercise, and one in five smokes cigarettes (the single most health-harmful behavior). Poor diet and inadequate exercise combine to lead to obesity (the second most dangerous lifestyle pattern). Excessive alcohol consumption is the behavior that contributes to the third largest number of deaths in the United States. Unlike the percentage of smokers (which is going down) or the percentage of persons who are obese (which is going up), the percentage of persons who drink excessively has remained at about the same level for at least the last decade.

### The Multidimensional Basis of HPBs.

Almost all research has discovered individual HPBs to have very small intercorrelations. This means that individual behaviors are often not related—engaging in one particular HPB (e.g., drinking in moderation) does not automatically mean (or even increase the chances of) engaging in another HPB (e.g., getting adequate exercise). For example, men are much more likely than women *both* to get more exercise and to drink immoderately (perhaps both reflecting a traditional male ethic).

Nevertheless, some consistent relationships between HPBs do exist. Some studies have found a positive relationship between smoking and alcohol consumption and between alcohol consumption and poor dietary habits. While level of exercise is highly dependent on age, in general, those who eat nutritiously are more likely to exercise than those who eat poorly. In fact, among those over 60, smokers and drinkers with a good diet are more than twice as likely to exercise vigorously as non-smokers and nondrinkers with a poor diet.

### Correlates of Participation in HPBs.

Participation in many of the HPBs is related to such sociodemographic characteristics as age, gender, race, education, and income. For example, studies have consistently found that females are more likely than males to engage in HPBs. Women are more likely to wear seat belts, less likely to smoke cigarettes and be heavy smokers, and less likely to drink alcohol excessively (men are three to four times more likely to be classified as problem drinkers). Women are even much more likely than men to wash their hands after coughing, sneezing, handling money, and especially after using a public restroom (88 percent of women do compared to only 67 percent of men). However, a much higher percentage of men than women get adequate exercise. Overall, however, women, especially young women, are much more likely to lead a healthy lifestyle.

Level of education, occupation, and income also affect participation in HPBs. People with high incomes are more likely to have a healthy lifestyle, especially among older people. People working in occupations requiring higher levels of education lead healthier lifestyles than those working in jobs requiring less education. Lower levels of education are strongly associated with smoking and are related to obesity and lack of exercise. People with lower incomes are more likely to smoke, less likely to exercise, and less likely to wear a seat belt.

Black women are more likely to be obese and less likely to be physically active than white women, although these differences may be explained by differences in education, income, social networks, and life events. On the other

hand, smoking rates of black and white women are nearly identical, and about the same percentage of blacks and whites use seat belts.

The box on “Binge Drinking on College Campuses” addresses an important behavioral phenomenon among college students.



## IN THE FIELD

### BINGE DRINKING ON COLLEGE CAMPUSES

In response to several binge drinking–related deaths among college students in the early 1990s, the Harvard School of Public Health conducted a national survey in 1993 in order to accurately describe the prevalence of binge drinking on campus. They defined binge drinking as the consumption of at least five drinks in a row for males or four drinks in a row for females during the two weeks prior to the survey. Based on this definition, they determined that 44 percent of students were binge drinkers.

Prompted by the publicity surrounding the deaths and the widely disseminated findings of the study, many institutions decided to challenge the traditional notion that binge drinking is simply part of the college experience. Drinking awareness and education courses were developed, alcohol counselors were employed, and more stringent college rules were established. However, follow-up surveys conducted in 1997, 1999, and 2001 and studies conducted throughout the early 2000s have found that the percentage of binge drinkers on campus is essentially unchanged. What has happened? Why have all the interventions basically not made a dent in the rate of binge drinking?

Close analysis of the data discovered that at least two significant changes did occur during the 1990s. Reflecting some increasing polarization on campus, both the rate of abstention (19 percent in 1999) and the rate of *frequent* binge drinking—three or more binges in the previous two weeks (23 percent in 1999) increased during the decade. Further, while binge drinking among dormitory residents actually declined in the 1990s, it increased among students living off campus—especially among those living in fraternity and sorority houses. Thus, the gaps between nondrinkers/light drinkers and intensive drinkers and between Greeks and non-Greeks widened. The study found that while bingeing occurs among all campus subgroups,

the rate is especially high among white, male fraternity members (Caudill et al., 2006).

To what extent are students aware of binge drinking on their campus, and to what extent do they view it as a problem? The Harvard survey discovered that half of students underestimated the binge drinking rate on their campus (29 percent overestimated it, and only 13 percent were on target). Binge drinkers were especially likely to *overestimate* the campus rate. Researchers found little of a healthy alcohol-related social norm among fraternity members. Many view their level of consumption as being the same as their close friends (positive reinforcement) and do not see bingeing as a negative health behavior (Keeling, 2002).

At this point, many institutions are undertaking systematic research projects to test the effectiveness of various types of interventions. Perhaps most popular has been a *social norms approach to binge drinking*. The underlying theory of this approach is based on the evidence that students generally misperceive the frequency with which their peers engage in unhealthy behaviors, and that their own behavior is influenced by the misperception. Students who overestimate the percentage of binge drinkers—that is, who think bingeing is very common—on their campus are most likely to become binge drinkers themselves (Martens et al., 2006). Thus, institutions have sought to create a more accurate impression among students about the actual percentage of binge drinkers on campus. It is not yet clear how successful these programs will be. On the one hand, the percentage of students who binge drink remains steady at around 40 percent. On the other hand, several limited experiments have found that participation in a program that emphasizes the nondrinking or nonbingeing segment of students does reduce the likelihood of problem and binge drinking (Hagman, Clifford, and Noel, 2007; Turner, Perkins, and Bauerle, 2008).

## Detection

Today, a wide range of health-screening procedures are available, including periodic physical examinations, eye and dental examinations, blood pressure and cholesterol readings, prenatal and well-baby care, and screenings to detect cancer. These procedures are designed to identify and monitor health problems. Much research has demonstrated considerable health and cost benefits of participation in these services.

**Correlates of Participation in Detection Services.** Because these detection services are so effective, the question becomes, why do some people not use them? One important reason is that the cost of some of these services discourages participation of people with low incomes and inadequate or no health insurance. In the United States, low-income women receive one-third less prenatal care, and children from poor families are only one-fourth as likely as children in nonpoor families to have a routine physical examination.

Studies comparing the use of preventive health measures by those who have and those who do not have health insurance illustrate the importance of financial status. Numerous studies have found that individuals who prepay for their health care services and do not incur any expense in using preventive care services are much more likely than those who pay out of pocket to receive preventive health care services.

Cost of services can also be calculated in ways not having to do with available financial resources. It may be not having access to a physician, not being able to get off work (without losing wages) to visit a physician, and, ultimately, becoming accustomed to going without care. When funds are unavailable or physicians are inaccessible, some families forego detection services hoping to stay well without them.

Similarly, many poor parents forgo any medical contacts for themselves so that whatever funds are available can be used for their children. Research on families who receive services at free health clinics—where services are typically offered at no charge by volunteer physicians and dentists—has found that many parents bring children to the clinic

for preventive or therapeutic care but do not ask to be seen themselves. Often, when staff inquire, the parent acknowledges having some medical problems that could be addressed by clinic staff. But the parent has become so accustomed to doing without medical care that no request for personal services is made (Weiss, 2006).

Research has also discovered that level of education and racial/ethnic identity influence receipt of detection services. Holding other variables constant, people with more education tend to obtain more detection services, and whites tend to obtain more services than blacks or Hispanics. However, the influence of racial/ethnic group membership varies by the specific type of detection service.

## Healthy People 2010 and 2020

Every ten years, the Department of Health and Human Services publishes a document containing broad national health goals and very specific targeted objectives for the following decade. *Healthy People 2010* was published in January 2000 and was designed to serve as the basis for the development of similar plans in communities and states across the country. Like previous documents published in 1980 and 1990, the document called upon the best scientific knowledge and a broad cross section of individuals from around the country.

The two overarching goals established for the first decade of the millennium were (1) to increase the quality and years of healthy life (i.e., to increase life expectancy and improve quality of life), and (2) to eliminate health disparities among population subgroups. Identified in the document were the ten “leading health indicators” for the nation: (1) physical activity, (2) overweight and obesity, (3) tobacco use, (4) substance abuse, (5) responsible sexual behavior, (6) mental health, (7) injury and violence, (8) environmental quality, (9) immunization, and (10) access to health care (United States Department of Health and Human Services, 2000).

*Developing Healthy People 2020* was published in 2010 with the mission of improving health by strengthening health policy and

practice, identifying nationwide health improvement priorities, and increasing public health awareness of the social determinants of health, disease, and disability. The planning committee identified four specific objectives for the decade:

- To eliminate preventable disease, disability, injury, and premature death
- To eliminate health disparities and improve health for all groups
- To create social and physical environments that promote good health for all
- To promote healthy development and healthy behaviors at every stage of life

Jonathan Fielding, who is public health director in Los Angeles County and chaired the advisory committee developing the 2020 document, said:

We can't achieve what we want without looking at education, jobs, public health infrastructure, recognizing that poverty is a poison ... it can't just be left to public health. We need to have elected leaders think about the health implications of what they do—tax policy, mass transit, agricultural subsidies—we need people in all sectors to be thinking about health implications. (Fielding, 2009)

The accompanying In Comparative Focus box, “Providing Prenatal Care in Western Europe,” illustrates an important public health initiative in Western European countries.

### EXPLAINING HEALTH BEHAVIOR

In the late nineteenth century, Max Weber identified both *macro* factors (social-structural conditions) and *micro* factors (personal choices) as being important influences on the formation of



#### IN COMPARATIVE FOCUS

##### PROVIDING PRENATAL CARE IN WESTERN EUROPE

The fact that many countries in the world have a lower infant mortality rate than the United States was documented in Chapter 3. A key part of the explanation for this pattern is that a higher percentage of babies born in the United States have low birth weight. Epidemiologists state that the most effective means for reducing the number of low-birth-weight babies is increasing access to prenatal care for all pregnant women.

Why do other countries do better than the United States? McQuide, Delvaux, and Buekens (2000) examined the situation in 17 Western European nations and determined that all provide comprehensive and accessible prenatal care at no charge to all women. Unlike the United States, no woman is ever turned aside due to inability to pay or lack of available services. All these countries offer universal coverage for health services, readily available prenatal clinics, and special outreach programs for high-risk pregnant women and postpartum care. In some countries, there are additional pregnancy (financial) allowances and the provision of prenatal care at work sites.

How do these countries afford this? The irony is that they save money by guaranteeing prenatal care to all women. Studies conducted in the United States have determined that the average hospital delivery charge is almost twice as much for women who have not received prenatal care as for those who have (because of the greater likelihood of problem births) and that significantly greater expenses are incurred at least through childhood and adolescence (Henderson, 1994). Those who advocate guaranteeing prenatal care in the United States cite economic as well as moral reasons for their rationale.

If the United States guaranteed adequate prenatal care, would the infant mortality differential between the poor and the nonpoor disappear? Much of it would, but probably not all of it. Continuing differences in such areas as nutrition, general health of the mother, and health knowledge may mean some differential would remain (as it has in other countries), but the social class difference is much smaller in other countries than in the United States.

lifestyle. He referred to the impact of social-structural conditions as “life chances” and the impact of personal choices as “life conduct” and argued that they are interlinked and interdependent. This interdependence of life chances and life conduct is particularly insightful in relation to health and illness. After all, certain life chances (e.g., income) influence individual

health behaviors, and certain behaviors (e.g., substance abuse) are health damaging and can harm one’s life chances (Cockerham, 2000). In the United States, without question, more attention has been directed to examining participation in health behaviors from the micro perspective. This section of the chapter reviews contributions from both approaches.



Undergoing routine eye examinations can be an effective “detection” behavior to monitor eye health and to catch any eye diseases or deterioration at an early stage.



Public health experts strongly recommend preventive health care for all persons, including children.

### The Macro Approach to Health Behavior

Several medical sociologists have criticized the almost exclusive focus that policy makers and the general public have given to personal choices and individual behaviors in considering health behaviors. The late Irving Zola creatively captured this criticism in an oft-quoted metaphor:

You know, sometimes it feels like this. There I am standing by the shore of a swiftly flowing river and I hear the cry of a drowning man. So I jump into the river, put my arms around him, pull him to shore and apply artificial respiration. Just when he begins to breathe, there is another cry for help. So I jump into the river, reach him, pull him to shore, apply artificial respiration, and then just as he begins to breathe, another cry for help. So back in the river again, reaching, pulling, applying, breathing and then another yell. Again and again, without end, goes the sequence. You know, I am so busy jumping in, pulling them to shore, applying artificial respiration, that I have **no** time to see who the hell is upstream pushing them all in. (Zola in McKinlay, 1974)

What are the upstream factors? Cohen, Scribner, and Farley (2000) identify four types of health-related macro-level factors that have a direct impact on individual behaviors. These include:

1. *The availability of protective or harmful consumer products* (such as tobacco, high-fat foods, sterile needles, and condoms).
2. *Physical structures/physical characteristics of products* (such as childproof medical containers, seat belts, and well-lit neighborhood streets).
3. *Social structures and policies* (such as enforcement of fines for selling tobacco to those who are underage and provision of community day-care services).
4. *Media and cultural messages* (such as advertisements for alcohol products).

John McKinlay cogently argues that with regard to preventive health actions, we have spent most of our time downstream being preoccupied with encouraging people to avoid risky behaviors, while we have neglected the consumer products, physical structures, social

structures, and media messages upstream that create and promote the options of risky behaviors. He states that significantly greater impact on health occurs with legislative acts that raise taxes or restrict advertising on cigarette manufacturers than a multitude of efforts to persuade individual smokers to quit. Yet most efforts are directed downstream at the individual smokers rather than upstream at the tobacco industry.

In concurring with McKinlay, Nancy Milio (1981) states that the paramount factor in shaping the overall health status of society is the range of available health choices rather than the personal choices made by individuals at any given time. Moreover, the range of choices is largely shaped by policy decisions in both government and private organizations. To really affect the health of the people, she argues, it is national-level policy that must be affected. An example of this is the increase in the percentage of drivers using a seat belt—the largest increase in participation in a health-related behavior in the United States in the last 30 years. The significant upsurge in seat belt usage occurred in the mid-1980s, when states began requiring their use. These legislative acts had far more effect on seat belt usage than all the public education “Buckle Up” campaigns combined.

The accompanying box, “Syringe Exchange Programs,” describes an interesting policy choice.

**The Macro Approach and Cigarette Smoking.** The use of tobacco kills more than 400,000 Americans each year and is predicted to lead to the deaths of 1 billion people worldwide in the twenty-first century. For decades, efforts in the United States were concentrated on encouraging individual smokers to quit. But these efforts occurred against a backdrop of formal and informal (upstream) social policies that subsidized the tobacco industry, prevented measures that would discourage tobacco use, and allowed marketing campaigns that even the tobacco industry now acknowledges were dishonest.

In the last several years, important strides have been taken to create upstream, “macro”



## IN THE FIELD

### SYRINGE EXCHANGE PROGRAMS

One of the most common methods of transmission of the HIV virus is the sharing of contaminated needles. The percentage of AIDS cases traced to injectable drug use varies widely from state to state, but ranges from under 10 percent to almost half with most states being in the teens. Public health officials and medical associations and societies have for years been urging states to allow over-the-counter sale of syringes in pharmacies and/or allow drug users to exchange used needles for sterile ones. They have also lobbied the federal government to help subsidize these programs.

Research in states that offer these programs has reported considerable success in reducing the percentage of AIDS cases caused

by use of HIV-infected needles. The programs have been called an excellent example of an evidence-based approach to reducing risk of AIDS. By 2010, all states allowed either over-the-counter sales of syringes or had exchange programs or both. The ban on federal funding has also been lifted, so that programs have a reasonable chance of success.

Do these programs have bipartisan support? No. Many Republicans, some Democrats, and many in the drug law enforcement and drug control communities have opposed these programs for being an implicit endorsement of using injectable drugs. They argue that emphasis should be on treatment for drug abuse rather than reducing its dangers. At this point, public health concerns have prevailed.

social policies to reduce the number of smokers and the social costs and health damages due to smoking. These policies include:

1. ***Ending agricultural subsidies to tobacco farmers.*** Beginning in the 1930s, the government offered a program to stabilize the price of tobacco and encourage small farmers to stick with tobacco as their primary crop. In 2004, legislation was signed to end this program (over a ten-year period). Part of the program termination is a \$10.1 billion payout to tobacco farmers, but at least the program will end.
2. ***Taxing tobacco products at a higher level.*** Until the last few years, the federal government and most state governments continued to tax tobacco products at a low level—especially relative to other countries like the United Kingdom, Canada, Norway, and Denmark, where the cigarette tax was several times higher per pack. Substantial research shows that as the price of cigarettes increases, the number of people—especially teenagers—able and willing to purchase

them decreases. In the last ten years, the federal government and many state governments have significantly increased the tax on cigarettes, and the percentage of overall smokers and especially teenage smokers has correspondingly decreased. Between 1997 and 2007, the percentage of teenagers who smoke was cut almost in half. Recently, the percentage of smokers has stabilized (at around 20 percent), and part of the reason that the decline has stopped is that some states (especially South Carolina, Missouri, Mississippi, Virginia, and Florida) have refused to measurably increase the cigarette tax (in 2009, the state cigarette tax in Rhode Island was \$3.46 per pack; in South Carolina, it was 7 cents per pack). The American Lung Association recently gave six states—Alabama, Missouri, North Carolina, South Carolina, Virginia, and West Virginia—failing grades across the board in antismoking efforts.

3. ***Creating creative antitaxing public health campaigns.*** Tobacco companies are fully aware that 90 percent of all smokers begin



Bans on cigarette smoking in public buildings are one of several “macro-level,” public health measures designed to reduce use of tobacco products.

during their teenage years. Their strategy has often been to target adolescents understanding that they may be very susceptible to marketing techniques, and once they are hooked, it may be difficult to stop. For years, these marketing campaigns went largely unchallenged. Now, public health departments, schools, and others have begun to create their own marketing campaigns to discourage smoking. Some of these campaigns appear on television, but effective use is also being made of social networking sites (Durkin, Biener, and Wakefield, 2009).

4. ***Creating and enforcing strict smoking bans.*** Since the Surgeon General reported “massive and conclusive scientific evidence” in 2006 that breathing in the smoke of other smokers can lead to significant health problems (an estimated 50,000 people die each year from breathing in second-hand smoke), significant action has been taken to eliminate smoking in restaurants, bars, office buildings, apartments and condos, workplaces, and other buildings.
5. ***Holding the tobacco industry financially responsible for health damages resulting***

*from their false claims.* In 1998, 46 states reached a joint settlement with the four largest tobacco manufacturers for tobacco-related health care costs annually and in perpetuity. The settlement is estimated to be worth \$246 billion in the first 25 years. The states agreed to spend a significant portion of the settlement funds on tobacco education programs for children, smoking cessation programs, and health care. However, there is some controversy about the legitimacy of the ways that some states are spending their settlement funds.

6. ***Closely regulating the tobacco industry.*** In 2009, President Obama signed legislation to give the U.S. Food and Drug Administration the authority to regulate tobacco products and their marketing. Long a priority of the public health community, the law includes such components as banning the following: outdoor tobacco advertising near schools and playgrounds, tobacco brand sponsorship of sports teams, free giveaways of nontobacco items with tobacco purchases, and cigarettes and smokeless tobacco from being sold in vending machines. Penalties are increased for retailers who sell tobacco products to minors. It bans tobacco products from using terms that have been found to be misleading such as “light” and “low tar” and allows the FDA to monitor other tobacco company claims.

The tobacco industry and the members of national, state, and local legislatures who support them and their interests have certainly not surrendered efforts to convince the public—especially teenagers—to smoke cigarettes. Before they were banned, Camel cigarettes sometimes came with promotional giveaways such as berry-flavored lip balm, cell phone jewelry, purses, and wristbands. They have developed new cigarette brands with a variety of exotic flavors that appeal to adolescents. (The FDA immediately banned the sale of candy-, fruit-, and clove-flavored cigarettes, but menthol-flavored cigarettes, which are especially popular among some teens, remain on the

market.) When significant tax increases went into effect for roll-your-own tobacco, companies began marketing it as pipe tobacco to avoid the tax (even though it would still be used for cigarettes). Two of the nation's largest cigarette makers—R.J. Reynolds Tobacco Company and Lorillard Tobacco Company—and several smaller manufacturers and retailers have filed a lawsuit against the marketing restrictions announced by the FDA. One means of bypassing these regulations in the United States is to increase markets overseas—especially in less developed countries—a concern to the global health community (Gostin, 2007).

The industry has also been reported to have created “front groups”—seemingly independent groups that support industry claims and promote industry positions. Among others, in 1994, R.J. Reynolds created the Get Government off Our Back group but kept its own involvement secret. The group appeared to outsiders as a group of generally disaffected citizens who supported the tobacco industry against external criticism rather than what it was—an industry interest group (Apollonio and Bero, 2007). Acting more directly, the industry has attempted to prevent policy relevant research from being done by bringing lawsuits against researchers testing for the damages of tobacco and getting their research funding cut off (Landman and Glantz, 2009) and has attempted to use its influence to stop antitobacco media campaigns or control their influence (Ibrahim and Glantz, 2007).

**The Macro Approach and Obesity.** In the United States, 68 percent of the adult population is at least 10 pounds over their recommended weight (compared to only 25 percent in 1960). Recent statistics show that 34 percent of adults are *overweight*—from 10 to 30 pounds over a healthy weight—and 34 percent of adults are *obese*—more than 30 pounds over a healthy weight. Of those in the latter category, 2 percent (about 4 million people) are *extremely obese*—more than 100 pounds over a healthy weight. About 32 percent of kids are overweight or obese.

On average, individual weight in the United States increased by 1 to 2 pounds per year for

the last decades of the twentieth century and the first decade of the twenty-first century. Between 1986 and 2000, there was a 216 percent increase in the number of obese individuals and a 389 percent increase in the number of extremely obese individuals. Obesity has become a worldwide problem (almost 2 billion overweight persons in the world), but the United States has the largest percentage of obese population. Obesity increases dramatically in the late teens and twenties, but an alarmingly high percentage of children and adolescents are overweight. The percentage of obese 12- to 19-year-olds more than tripled between 1976 and 2000. After years of increases, it appears that these percentages have now leveled off at these high figures, although the percentage of obese males between the ages of 6 and 19 is continuing to increase.

The consequences of this pattern are clear. Obesity increases the likelihood of premature death, heart disease, diabetes, cancer, high blood pressure, arthritis, depression, Alzheimer's disease, injury, and days lost from work and leads to significantly greater lifetime medical costs (Haskell, Blair, and Hill, 2009). Estimates are that overweight nonsmokers lose 3 years of life, obese nonsmokers lose 7 years, and obese smokers lose 13 years.

What has caused this dramatic shift toward weight gain? There is some genetic predisposition to obesity (e.g., genes that influence appetite control), and there are physiological influences on hunger. For some individuals, these factors are the primary culprit. But these factors have not changed over time and do not explain the escalating figures for the population. Instead, many social scientists and many in the public health community point to the fact that we have evolved into an “obesogenic” culture filled with influences that push people toward health-harming behaviors such as unhealthy eating and absence of a physically active lifestyle. This characterization is consistent with a macro approach to understanding health behaviors.

The signs of this obesogenic culture are evident. The dietary habits of Americans have changed significantly in the last three decades. Whereas dining in a restaurant was once the

exception, it is now the common pattern for many families. Restaurants often prepare foods in ways that provide a very high number of calories and saturated fats. Portion size has become a major marketing technique, and many restaurants provide meals that double, triple, or more recommended portion size. Research shows that the more we are served, the more we eat. Fast-food restaurants—perhaps by far the biggest culprit—have become enormously popular during these years. People who eat in fast-food restaurants at least twice a week are about 50 percent more likely to be obese. Many of the “most bang for the buck” foods available in grocery stores are notoriously unhealthy. People are eating more and more, the foods we eat are larger in portion and contain more calories and more fat, and we consume many more calories per day than are required. The average adult American ate an estimated 140 more pounds of food in the year 2000 than in 1990.

For young people, eating nutritiously may be even more of a challenge. It is only recently that serious, critical attention has been given to the low quality of lunches provided in many schools. Moreover, many schools have long had snack vending machines that offer sugary soft drinks, candy, cookies, regular potato chips, and other unhealthy foods. Studies show that on school days many students get a substantial percentage of their calories from these foods.

Fast-food restaurants often locate near schools, and many students eat meals or snacks there. Studies have found that students whose school is within one-half mile of a fast-food restaurant consume more soft drinks, eat fewer fruits and vegetables, and are more likely to be overweight (Davis and Carpenter, 2009). Whether the restaurant is fast food or not, the children’s menu at many restaurants is packed with calories, and particular dishes offer as many calories as a child needs in an entire day.

Advertisers have targeted children and adolescents with heavy campaigns of food-related messages. Research has found that almost all these ads feature junk food. In one study, 34 percent of the ads intended for children were for candy and snacks, 29 percent for sugary

cereals, 10 percent for beverages, 10 percent for fast food, 4 percent for dairy products, 4 percent for prepared foods, and the rest for breads, pastries, and dine-in restaurants (Kaiser Family Foundation, 2007).

The twin cause of the shift toward an overweight and obese population is the decrease in people getting adequate physical exercise. According to most surveys, only about twenty percent of American adults meet the recommended levels of physical activity—at least 30 minutes of moderate-intensity physical activity for a minimum five days per week or at least 30 minutes of high-intensity physical activity for a minimum three days per week. About 40 percent of adults do no physical exercise. For young people, levels of physical activity drop markedly between age 9 (about 3 hours daily of physical activity) and age 15 (about 50 minutes of daily physical activity), and then drop again with the start of college. The feared “freshman 15” (pounds of weight gain) is in actuality a typical gain of 6 to 9 pounds for first-year college students. The most common reasons? A dramatic increase in beer drinking and a further significant decrease in physical activity.

If we conclude that many of the causes of population weight gain are traceable to changes in culture and society, what would be some possible “macro-level” solutions to combat unhealthy eating?

1. A requirement that restaurants post calorie information on menus. Now implemented in New York City for chain restaurants and being studied in other cities, research has found that such information does influence selection and intake. If a substantial number of diners select lower calorie options, restaurants might offer more of them (Roberto et al., 2010). Some restaurants—including fast-food restaurants—have added nutritional options on their menus.
2. A requirement that schools offer nutritious school lunches. Ever wonder why school lunches are often based around cheeseburgers, roast beef with gravy, and sausage

pizza? It is due to the Farm Bill legislation that requires the U.S. Department of Agriculture to purchase commodity foods—such as meat and dairy products but rarely fruits and vegetables—to bolster agricultural businesses by buying their surpluses and ensuring that prices remain at a certain level. Then, these surplus commodity foods are given to schools for their lunch programs. As a result, many of the foods served are not the healthiest choices (Salsbury, 2007). The Obama administration has made the necessary changes in this program. Some soft drink manufacturers are pulling out of schools.

3. Regulation of food advertising directed at children and adolescents with some limits or required balance with healthy food products.
4. A tax on sugary beverages and sugary foods to discourage purchase and to obtain money to assist in healthy eating programs. This option has been suggested in some cities but has met with strong opposition.

Some macro-level solutions to deal with the lack of physical exercise are as follows:

1. A significant effort to construct “built” environments that encourage rather than discourage physical exercise. Substantial research shows that many more people engage in physical exercise when they have safe, appropriate facilities in which to do so. Communities could start building “complete roads” that provide space for cars, bikes, and pedestrians to use safely; sidewalks for safe walking or jogging; urban parks for recreational use; greenways (walking paths); community recreation centers; and better-lit neighborhoods.
2. Commitment to genuine physical education classes in schools with emphasis on activities that students can incorporate throughout their life (i.e., more emphasis on walking, strength training, or aerobics than dodgeball).
3. Community-wide weight reduction efforts with a strong social support component and incentives.

4. Systematic development of employee wellness programs that emphasize physical exercise.

**Reasons for Lack of Attention to Macro Factors.** Why is so little attention devoted to macro-level factors? At least three reasons seem important. First, using social policy and the force of laws to regulate individual behavior is viewed by some as contradicting the cultural value of individualism. Alonzo (1993) points out that people are willing to cede to the government’s prevention activities that they cannot do for themselves—for example, inspecting the safety of each bridge. But people are more reluctant to empower the government to protect us from our own behaviors. Many believe that allowing the government to go too far upstream oversteps its legitimate role in a free society. The accompanying In the Field box, “The Controversy Regarding the Human Papillomavirus (HPV) Vaccination,” illustrates this point.

Second, the value of individualism carries over into the political economy. Donahue and McGuire (1995) use the term *marketplace strategy* to describe the view that the government’s primary obligation is to stay out of the marketplace so that individual consumers can exercise their own judgment about what to purchase and how to live. Of course, the view that the medical marketplace is completely open is inaccurate. Corporations and the government itself very much influence health (e.g., through the location of toxic dumps), and corporations contribute sizable amounts of money to political candidates each year hoping to influence the political process. For example, in recent years the tobacco industry has contributed millions of dollars each year to members of Congress. Whether these contributions have influenced Congress’ reluctance to increase the cigarette tax—a measure with broad public support—can only be surmised, but the more money a member received, the less likely he or she has been to support tobacco control legislation (Moore et al., 1994).

Third, the absence of attention to macro-level factors enables society to forego dealing with the wealth of research that establishes a direct

relationship between individuals' social and physical environment and their health status. Studies have shown that even a small increase in years of education for an individual—or in average years of education for a population—has a greater impact on health status than the available quantity of health resources. But by focusing on the individual, and solely affixing responsibility for health behavior at that level, the important effects of poverty and unemployment, racism, and lack of educational opportunity can be ignored (Becker, 1993).

### The Micro Approach to Health Behavior

The importance of macro-level factors does not negate the importance of understanding the factors that influence individual decisions about health behaviors. Several micro-level theories have been developed to explain health behavior. This section of the chapter describes two theories that have received significant attention.

**The Health Belief Model.** The **Health Belief Model (HBM)** provides a paradigm for understanding why some individuals engage in HPBs, while others behave in knowingly unhealthy ways. The model recognizes that, in making health decisions, individuals consider both health-related and nonhealth-related consequences of behavior.

Development of the HBM (Becker, 1974) was sparked by the concern of many public health researchers in the 1950s and 1960s that few people were altering their behavior (e.g., ceasing to smoke) *despite* public health warnings. Developed by a group of social psychologists, the basic premise of the HBM is that the likelihood of engaging in preventive health behavior is influenced by certain beliefs about a given condition (such as developing cancer) rather than by objective facts.

According to the HBM, individuals will take preventive health action only when the following four conditions exist:

1. The individual feels susceptible or vulnerable to a certain disease or condition.
2. The individual feels that contracting the disease would have serious consequences.
3. The individual believes that taking the preventive action would effectively reduce susceptibility to the disease (or at least reduce its seriousness if contracted) and that the action would not involve serious barriers (e.g., inconvenience, expense, pain, or trauma).
4. One or more cues or triggers for action (e.g., media attention, advice from others, a physician's reminder, or an illness of a family member or friend) occur.

These four perceptions can be influenced by several nonhealth factors including demographic (age, gender, social class, race/ethnicity), sociopsychological (personality, peer, and reference group pressure), and structural (knowledge about the disease, prior contact with the disease) factors.

The HBM has been shown to be an effective predictor of preventive health action in studies focusing on such behaviors as breast self-examination, patient compliance with regimens, getting an influenza vaccination, seeking dental care, dietary compliance among obese children, keeping follow-up appointments, and cigarette abandonment. These studies have shown that taking preventive health action is more likely when perceived vulnerability to a serious disease or illness is high and when a preventive health action is perceived to be effective in avoiding a negative outcome.

However, limitations of the HBM have also been identified. A key limitation is that the model is structured to focus on preventive health action relative to a particular disease or illness. To use the model, one must assess perceptions of a particular disease and perceptions of the efficacy of taking action to prevent that disease. Although the model has been helpful in examining these disease-specific behaviors, it is less applicable to understanding preventive health actions in general or in predicting the likelihood of engaging in general health-promoting behavior unrelated to fear of a particular disease.



Exercise classes have become an increasingly popular format for individuals to obtain recommended levels of physical exercise. They offer the advantages of trained leaders, social support, (and, a little peer pressure).



## IN THE FIELD

### *THE CONTROVERSY REGARDING THE HUMAN PAPILLOMAVIRUS (HPV) VACCINATION*

It is not uncommon for public health interests and individual choice to come into conflict. On the one hand, when the public health community is convinced that taking some particular action, such as being vaccinated against a disease, is overwhelmingly in the public interest, they may seek to have the service be made widely available and even mandated. At the same time, people who are unconvinced of the value of the action or who in principle oppose government mandates on individual behavior object to such plans. These conflicts are especially complex in two circumstances: when the action involves children and adolescents and when failure to take the action could jeopardize the health of others.

A situation of this type has occurred in the last several years with the development of a vaccine to protect against the HPV—an infection that causes cervical cancer. About one in four teenage girls in the United States has a sexually transmitted infection (STI), and the most common is HPV. About 80 percent of women acquire some form of HPV by the age of 50 in the United States. Many of the 120 types of HPV come and go without presenting any symptoms. However, those that linger can lead to cervical cancer, genital warts, and other cancers of the genitals or anus. About 20,000 women and 8,000 men in the United States get cancer caused by HPV each year.

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In 2006, a vaccine to guard against HPV was developed, and a federal advisory committee on immunizations recommended that all girls age 11 or 12 receive the three-dose vaccination. The vaccine can be used for females between ages 9 and 26, but the ages of 11 and 12 were selected to vaccinate girls before they become sexually active and are at risk. The vaccine is not effective against all forms of HPV, but it is effective against the strains that cause 70 percent of cervical cancer and 90 percent of genital warts. The drug has only relatively rare and minor side effects. Condoms provide some, but less than 100 percent, protection. Males can also get both the high-risk and low-risk strains, although the high-risk strains cause more problems for women. The scientific community generally endorsed the vaccine as a safe and effective public health intervention (Balog, 2009). Surveys showed most parents supported it (Brewer and Fazekas, 2007).

Within the space of a year, legislators in almost half of the states introduced mandatory vaccination bills with parental opt-out provisions. Support was strong among both Democrats and Republicans, as sponsors of the bills represented both parties. Then

opponents became more vocal. Opposition for some was based on an interference with parental rights. For others, the vaccination mandate seemed to license or even encourage sexual promiscuity for very young girls and was unnecessary for those who were not sexually active. (Research has found that girls who receive the shots do not become more promiscuous.) Some worried that Merck & Company, manufacturers of the drug, were lobbying too forcefully and had not done sufficient research on the drug (Rothman and Rothman, 2009). Some argued the vaccine was dangerous, although research has not found that to be true.

What is the latest? A second HPV vaccine (from another manufacturer) is now available. Research on long-term effects continues. The vaccine is now also recommended for boys as a method of preventing HPV-related genital warts. Many countries around the world use the vaccine, and it is free for women in the target age group. In the United States, the vaccination mandate programs have been withdrawn, but the vaccines are available (at \$360 for the three-shot protocol) on a voluntary basis. However, only about one-third of girls age 13 to 17 have received the full set of injections.

**The Health Belief Model and AIDS Risk and Reduction Among Young People.** The HBM has been used to explain why some young people voluntarily protect themselves against the deadly HIV infection while others remain knowingly vulnerable. Without question, many young people are at risk of AIDS. More than half of all children in the United States engage in some kind of sexual behavior before age 13, and more than three-fourths of males and females have engaged in sexual intercourse by the age of 19. The high rate of pregnancy among teenagers (more than a million pregnancies per year with 80 percent being unplanned) and the very high rates of sexually transmitted infections (STIs) (especially gonorrhea, syphilis, and chlamydia) among the young (about half of the 19 million new cases of STIs each year occur among individuals age

15 to 24) testify to the lack of safe sex practices. In addition, about one-third of diagnosed cases of AIDS are people between the ages of 20 and 29. Given the long incubation period, most of these people were infected during their teen years.

According to the HBM, individuals have differing perceptions regarding their susceptibility of infection as well as the seriousness of HIV/AIDS. For example, a gay male may feel particularly vulnerable due to the high incidence of AIDS in this group and may recognize its seriousness if he has witnessed the illness and death of friends. These perceptions must be complemented by information about the methods of transmission and the precautions that must be taken to avoid transmission.

However, individuals may still fail to take precautions. Some trust that medical technology

will find a solution to the problem (which may be a reflection of incorrect information as well as a form of denial of individual risk); others may not have been exposed to a triggering event (the death of a friend); and others may calculate that perceived barriers (sacrificing sexual pleasure) outweigh perceived benefits of preventive action. One must also feel capable of making the recommended behavioral changes and believe that those changes will actually make a difference. In high-prevalence areas, some may continue to engage in unsafe practices because they believe they are already exposed.

A study of more than 300 introductory psychology students in California postulated that three factors (perceptions of personal vulnerability, sexual behavior history, and homophobia) would predict levels of worry about contracting an STI, and in turn, that worry would predict behavioral change to safer sex practices. These predictions were supported in the research, although somewhat different patterns were found for female and male students. For both females and males, worry was a strong predictor of risk reduction behaviors. However, only females were influenced by sexual behavior history (e.g., number of partners and having had an STD), and only males were influenced by perceived vulnerability and homophobia. Thus, gender was identified as a key influence on the processes within the HBM (Cochran and Peplau, 1991).

A more recent study of 245 undergraduate students examined the sexual history and risk beliefs of the students relative to the likelihood of accepting various hypothetical HIV vaccines. Students most accepting of the vaccines were those with the greatest behavioral risks and highest perceived susceptibility to HIV accompanied by the lowest personal invulnerability beliefs—all consistent with the HBM model (Ravert and Zimet, 2009).

**The Theory of Reasoned Action.** Developed by Ajzen and Fishbein (1973), the central premise of the **Theory of Reasoned Action (TRA)** is that intention or motivation to perform a behavior precedes actual performance

of the behavior. The intention to behave in a particular way is influenced by attitude toward the behavior (how enjoyable or unenjoyable is this behavior?), social norms (is this an expected behavior in society?), messages conveyed by significant others (do others want me to engage in this behavior?), and the importance to the individual of complying with the relevant social norms and wishes of others.

Actual participation in a preventive health action would be preceded by beliefs, attitudes, and norms that encourage the action and an intention to engage in it. Similar to the HBM, background characteristics of the individual and certain personality and other social-psychological traits can be important influences. Unlike the HBM, TRA is almost entirely rational and does not include a significant emotional component (like perceived susceptibility to disease). In addition, TRA includes more explicit consideration of social influences by incorporating the wishes of significant others for the individual and the desire of the individual to comply with these wishes. Vanlandingham and his associates (1995) determined that TRA was a better predictor than HBM of using safe sex practices precisely because it places more emphasis on peer group influence.

**The Theory of Reasoned Action and the Cessation of Smoking.** Though TRA has not in general been as successful as the HBM in predicting preventive health actions, it has been more effective in predicting smokers who would attempt to stop smoking. One study that was based on a general household survey determined that behavioral intention was a critical precursor to actual attempts to cease smoking and that it was a more powerful predictor than any of the individual items in the HBM (which was also tested). Although the researchers preferred the HBM for other reasons, they concluded that the intention to engage in a preventive health action is an important influence of the action (Mullen, Hersey, and Iverson, 1987).

Although not specifically testing TRA, Christakis and Fowler (2008) have examined the extent to which groups of people quit



Fitness centers have become increasingly popular in communities and on college campuses throughout the country. They enable vigorous exercise throughout the year and can add a social dimension to physical conditioning.

smoking together. They studied a densely interconnected group of more than 12,000 people who were repeatedly assessed over a 32-year period. Within the group, they found discernible clusters of smokers and nonsmokers. During the study period, whole groups of smokers ceased smoking at the same time. Smoking cessation by a spouse or a sibling or a friend or by a coworker in a small firm all increased the likelihood of an individual's stopping. Moreover, smokers were increasingly moved to the periphery of the network. All these patterns are consistent with the importance of social norms and social influences. Additional research has pointed to increased stigma being associated with cigarette smoking—another form of social influence (Stuber, Galea, and Link, 2008).

**Other Social-Psychological and Social-Structural Influences.** Three additional variables with potential explanatory power for

health behavior have been studied. The underlying theory of **health locus of control (HLC)** is that healthy behaviors are selected by individuals based on the expectation that they will actually lead to positively valued health outcomes. That is, those who feel they have control over their own health (internal locus of control) are more likely to engage in HPB than those who feel powerless to control their own health and believe health to be determined by luck, chance, or fate (external locus of control).

Some research shows that persons with an internal locus of control are less likely to smoke and use alcohol and other drugs (Clarke, Macpherson, and Holmes, 1982) and are more likely to engage in personal health-screening activities, but many studies have failed to find locus of control to be an important predictor of health behaviors (e.g., Cockerham et al., 1986).

Several studies have shown that the value that individuals attach to their health helps to predict participation in health behaviors—those

who prioritize good health are more likely to lead a healthy lifestyle. In some recent studies, researchers have examined health locus of control in conjunction with a measure of *value of health*. Theoretically, behaviors followed by reinforcements high in value are more likely to be learned and repeated (Rotter, 1954). Therefore, it is reasonable to expect that internal health locus of control beliefs would predict HPBs only for people who place a high value on their health.

Some studies have found that internally controlled individuals who place a high value on health are more likely than others to quit smoking and have good eating habits. For example, Jackson, Tucker, and Herman (2007) found that college students who genuinely placed a high value on their personal health and believed that their actions influenced their level of health were more likely than those who did not to lead a health-promoting lifestyle. However, not all studies have detected this influence. Thus, the potential explanatory power of HLC and health value is still being determined.

Several studies have shown that individuals engaged in ongoing interpersonal relationships with family members, friends, and coworkers (*social support*) are more likely to participate in HPBs. Among adults, this often occurs as significant others attempt to influence and persuade the individual to practice a healthy lifestyle. For example, among a group of employees

enrolled in a work-site health promotion program, friends, relatives, and coworkers were positive influences in changing health-related behaviors initially and encouraging subjects to maintain these changes over time (Zimmerman and Conner, 1989). This pattern of influence also occurs within marriages, though wives are more likely to try to influence their husband's behavior than the other way around. This may help explain the reason that there is a significant health benefit for males in getting married though not for females. Broman (1993) has further established this relationship in his research showing that disengagement from social relationships is often accompanied by an increase in health-harming behaviors.

The influence of other persons is particularly strong among adolescents. Research has identified both perceived peer and parental approval of alcohol use to be important determinants of drinking behavior among teenagers. Adolescents who reported high parental approval of alcohol use also reported high levels of alcohol use by their friends. In a study of health care practices during the first three years of college, both parents and peers were found to have a significant influence on students' alcohol consumption, diet, exercise, and seat belt use. The researchers concluded that the direct modeling of behavior was the most important avenue of influence by both parents and peers (Lau, Quadrel, and Hartman, 1990).

## SUMMARY

The World Health Organization defines health as a state of complete physical, social, and mental well-being. Sociological approaches to understanding health emphasize the social and cultural aspects of health and illness and an ability to function in various social roles.

In general, Americans have many health-harming aspects in their lifestyle. About one-fifth of adults continue to smoke cigarettes, the most health-harming behavior; about two-thirds are overweight or obese due to poor diet and lack of physical exercise; and about 5 percent

are heavy drinkers. Binge drinking occurs in all population subgroups but continues to be a special problem among college students. Because preventive health care often involves direct or indirect costs, low-income persons have been much less likely to receive it.

Explanations for participation in healthy lifestyles follow both a macro and micro orientation. Macro approaches focus on the important influence of social structure (including poverty, unemployment, and racism) on ill health and on the potential of social policy to influence

participation in HPBs. Micro approaches, like the HBM and the TRA, focus on individual decision making and the process of determin-

ing whether or not to participate in specific preventive health actions. Both perspectives are important in understanding health behavior.

## HEALTH ON THE INTERNET

In recent years epidemiologists have carefully examined the consequences of being distracted while driving. While there could be many sources of distraction, primary attention has been focused on talking on a cell phone or texting while driving. One study found that talking on a cell phone while driving increased the risk of an accident by four times—making it approximately the same as driving while intoxicated (Strayer, Drews, and Crouch, 2006). A second study found that the likelihood of a collision while texting during driving was 23 times greater than when undistracted (Virginia Tech Transportation Institute, 2009). The National Safety Council reports that 28 percent of all automobile crashes are caused by drivers talking on a cell phone or texting while driving (Ship, 2010).

People in all age groups engage in distracted driving, although percentages are highest in adults age 18 to 29. About three-fourths in this age group talk on a cell phone while driving; 68 percent text message; and 48 percent access the internet on their phone. The Department of Transportation reports that in 2010 more than 3,000 people were killed and more than 400,000 were injured in accidents caused by distracted drivers. In recent years the number of deaths of teen drivers has sharply

increased. As of 2013, 39 states and the District of Columbia ban texting while driving. Studies show an overwhelming percentage of teenagers believe that texting while driving will eventually lead to an accident or even being killed, but few have abandoned the practice.

In 2011 the National Transportation Safety Board proposed that all states should prohibit all drivers from using portable electronic devices such as cell phones while driving. The recommendation urged a ban even on hands-free devices with headphones due to their threat of distracted driving. The Department of Transportation has also launched a Web site: [www.distraction.gov](http://www.distraction.gov).

Scan through this Web site, and then answer the following questions: (1) Given the evidence on danger, why do so many adults of all ages—but especially younger drivers—continue to talk on their cell phone, text, and access the Internet while driving? (2) Would you support the National Transportation Safety Board's (NTSB) recommended ban on all use of portable electronic devices while driving? (3) What, if anything, would you propose in addition to or instead of this recommendation to reduce the negative consequences of distracted driving?

## DISCUSSION CASES

**CASE 1** American businesses are becoming more active in monitoring the lifestyle of employees. Business leaders argue that these regulatory activities are justified in order to maintain a high level of on-the-job performance and hold down cost increases for health insurance by having a healthier workforce with fewer costly episodes of disease and illness. Critics of the increased monitoring activities contend that employers have no right to interfere in the private

lives of workers. While job performance can and should be evaluated, they argue, attempting to control lifestyle decisions in off-the-job hours is inappropriate and an invasion of privacy.

Businesses are now using several types of monitoring activities, including:

1. ***Drug screening of all employees.***  
The Occupational Safety and Health Administration (OSHA) estimates that

65 percent of all work-related accidents are traceable to substance abuse. Metropolitan Insurance Company estimates that substance abuse costs employers \$85 billion annually. In response, many companies (more than one-quarter of Fortune 500 companies) have instituted urine drug testing for all employees—white collar and blue collar. Such tests can show the presence of such substances as amphetamines, barbiturates, cocaine, marijuana, and opiates. Companies have a variety of policies for dealing with those identified as drug users including first-time warnings, drug education classes, job suspension or termination, and in the case of work situations related to public safety (e.g., firefighters and railroad engineers), prosecution.

2. ***Programs of incentives and mandates for specific lifestyles.*** Some businesses have established financial reward/penalty systems for workers' lifestyles. Based on "behavioral economics," workers who maintain a certain level of fitness or who do not smoke or who have a cholesterol count below a designated level are given cash bonuses (or the company pays more of the premium for health benefits). Workers who do not meet these lifestyle standards pay a financial penalty (or pay more of the health insurance premium).

Other businesses have developed even more stringent plans. Some employers refuse to hire people (or they fire current employees) who smoke cigarettes, are overweight, have high cholesterol readings, or in at least one case, ride a motorcycle. Thus far, courts have sent mixed signals on the legality of such provisions.

What are the social implications of programs of drug screening and lifestyle incentives and mandates? What would be the consequences if every company established plans like these? Are these programs an invasion of worker privacy? Are there any significant differences in these two types of programs?

Do programs now being initiated by middle and secondary schools to drug test all students

raise the same issues as employee drug testing, or are these programs different? Since the Supreme Court decision in 2002 that random testing of student athletes and students participating in extracurricular activities does not violate students' privacy, many schools around the country have instituted these programs. A Kansas school district does not allow students who have not consented to be drug tested to participate in or attend athletic events, field trips, driver's education courses, or school plays. An Indiana school district is drug testing not only athletes but also those who drive to campus or want to attend a school dance, prom, or school party. What additional issues, if any, are raised by these student drug-testing programs?

**CASE 2** Since 1984, the national minimum legal age for drinking alcohol has been 21. In 2009, a group of 135 college and university presidents endorsed the Amethyst Initiative—an advocacy proposal that comments on the failure of current policies to socialize young people to handle alcohol responsibly and encourages study and public debate about finding better ideas. Included among the ideas for debate was lowering the drinking age to 18. Estimates are that each year about 5,000 people under the age of 21 die as a result of underage drinking (from motor vehicle crashes, homicides, suicides, etc.).

Proponents argue that the current drinking age has not stopped excessive alcohol consumption, but it has pushed it out of the open to where it cannot be monitored. Rather than reducing drinking after driving, it may actually be leading to an increase as parties move from on-campus to off-campus. Opponents of lowering the drinking age argue that such a move would simply push the dangers of excessive alcohol consumption—to personal health and safety and to that of others—to a younger age, and that it might lead to an increase in driving after drinking among this age group. Meanwhile, social scientists and public health experts have begun to try to document the likely effects of maintaining the current policy or revising it (Wechsler and Nelson, 2010).

What would you identify as being the likely consequences—positive and/or negative—of

lowering the drinking age to 18? As a social scientist, how could you study this issue? What are the key arguments on both sides of the issue?

**CASE 3** In the chapter, we have discussed the recent controversy regarding whether or not the vaccination for the Human Papillomavirus

should be mandated. What do you consider to be the main arguments in favor of and opposed to such a mandate? How does the fact that public health organizations have recommended the vaccination for individuals under the legal age of consent impact this policy question?

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# CHAPTER 7

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## *Experiencing Illness and Disability*

### Learning Objectives

- Identify and discuss Suchman’s stages of illness experience.
- Identify and discuss the most important factors that influence the assessment of disease/illness symptoms.
- Explain the concepts “medicalization” and “demedicalization” and the factors that are impacting them.
- Identify and discuss the key social influences on the decision to seek professional medical care.
- Identify and describe the primary effects of living with a chronic illness and disability.

Medical sociologists have a natural interest in how people respond to illness. The concept **illness behavior** refers to “the way in which symptoms are perceived, evaluated, and acted upon by a person who recognizes some pain, discomfort or other signs of organic malfunction” (Mechanic and Volkart, 1961:52). On the surface, it may seem that the nature and severity of an illness would be the sole determinants of an individual’s response, and for very severe illnesses, this is often true. But many people fail to see a physician or go very late in the disease process despite the presence of serious symptoms, while many other people see physicians routinely for very minor complaints. These patterns suggest that illness behavior is influenced by social and cultural factors in addition to (and sometimes instead of) physiological condition.

### STAGES OF ILLNESS EXPERIENCE

Edward Suchman (1965) devised an orderly approach for studying illness behavior with his elaboration of the five key **stages of illness**

**experience:** (1) symptom experience, (2) assumption of the sick role, (3) medical care contact, (4) dependent-patient role, and (5) recovery and rehabilitation (see Figure 7–1). Each stage involves major decisions that must be made by the individual that determine whether the sequence of stages continues or the process is discontinued. While some elaboration of the model is necessary (e.g., see the section near the end of this chapter on living with chronic illness and disability), Suchman’s schema is used for organizing the beginning part of the chapter.

### STAGE 1: SYMPTOM EXPERIENCE

The illness experience is initiated when an individual first senses that something is wrong—a perception of pain, discomfort, general unease, or some disruption in bodily functioning. Suchman states that three distinct processes occur at this time: (1) the physical pain or discomfort, (2) the cognitive recognition that physical symptoms of an illness are present, and

**Figure 7–1** Condensed Version of Suchman’s Stages of Illness Experience Based on Edward A. Suchman, “Stages of Illness and Medical Care,” *Journal of Health and Social Behavior*, 6:114–128, 1965.

I Symptom Experience	II Assumption of the Sick Role	III Medical Care Contact
The feeling that something is wrong; the individual may self-treat (or try to ignore the problem).	The individual may surrender typical responsibilities and take on “sick role” responsibilities of trying to get better (or still be in denial).	The individual makes contact with a medical provider acknowledging that expertise is necessary and seeking illness legitimation (but may still be in denial and may get a second opinion).
IV Dependent-Patient Role		V Recovery and Rehabilitation
The individual agrees to undergo medical therapy administered by professionals (but may or may not follow medical advice).		If recovery occurs, the individual leaves the sick role and returns to customary responsibilities and activities associated with the well role (although some individuals may enjoy the benefits of the sick role and linger in that stage).

(3) an emotional response of concern about the social implications of the illness, including a possible disruption in ability to function.

### Assessment of Symptoms

David Mechanic (1968) developed a **theory of help-seeking behavior** to facilitate an understanding of this assessment process and how individuals act prior to (or instead of) seeking a health care provider. Mechanic traces the extreme variations in how people respond to illness to differences in how they define the illness situation and to differences in their ability to cope with the situation. The process of definition and the ability to cope are both culturally and socially determined. As individuals mature through life stages, they are socialized within families and within communities to respond to illness in particular ways. Part of this socialization is observing how others within the group respond to illness and noting the positive or

negative reaction their behaviors elicit. Sociologists refer to this process as the **social construction of illness** (Conrad and Barker, 2010). Among the factors that Mechanic identifies as determining how individuals respond to illness are the following:

1. Perception and interpretation of symptoms: the visibility, recognizability, perceived seriousness, amount of disruption caused, and persistence of symptoms.
2. The tolerance threshold (e.g., tolerance to pain) and perceived fear of the illness by the individual.
3. Knowledge and available information about the illness.
4. Availability of and accessibility to treatment resources, the cost of taking action, and competing needs for attention and resources.

Which of these factors most influences perception of one’s own health? Stewart and

colleagues (2008) found that it was the amount of pain being experienced, limitations on ability to perform normal social roles, and feelings of having little or no energy.

### The Importance of Pain As a Symptom

Although the importance of pain as a medical symptom may seem obvious, research on pain and its treatment has greatly increased only in the last 10 to 20 years. This research has found that pain is more common in the general population than previously thought. Almost 60 percent of adults in the United States experienced chronic pain in the last year, and 40 percent said they were in pain all the time. Most say their pain is moderate to severe intensity. Back pain is most common, followed by arthritis and joint pain, headaches and migraines, and knee and shoulder pain. A particular surprise is that adults age 18 to 34 are about as likely to have chronic pain as those who are older. Almost half of those in chronic pain do not consider it to be under control. Uncontrolled pain has been connected to higher rates of depression, anxiety, sleeplessness, and suicide. About one-half of Americans are in pain at the time of their death.

These statistics are especially surprising because many physicians say that most pain can be safely and effectively controlled. Only in recent years has **palliative care**—treating the pain and suffering of seriously ill patients—become widespread. They have reached a general level of acceptance for terminally ill patients—the United States now has more than 1,600 hospital-based palliative care programs and more than 5,300 hospice programs that deal with people in the last six months of their life. These programs have recorded significant success in relieving pain. But palliative care is still in relative infancy for treating people with serious, chronic (but not terminal) illnesses, who take curative medicines at the same time as the pain relief medicines.

There are four major obstacles to the use of pain relief medicine for more patients: (1) Few physicians have received training in pain management and are ill-informed about opioids,

synthetic versions of morphine, the most potent oral painkillers, (2) insurance companies inadequately compensate physicians who can spend a very large amount of time with patients in pain, (3) the Drug Enforcement Agency has actively prosecuted physicians for a variety of offenses related to the prescription of narcotic pain relief medications, and (4) many patients are fearful that the narcotic drugs that may be used will be addictive or have significant, negative side effects. Several pain relief medications have been pulled from the market. Oxycontin was found to lead to addiction and abuse and its manufacturer was found to have lied about these risks. Vioxx, which was used to control pain for many users, was found to double the risk of heart attack and stroke. Celebrex was more likely to lead to heart problems than Vioxx. But complicating the situation is the fact that the higher risks were observed only in long-term users of high doses of the drug. Some patients said they would willingly take the risks in order to effectively control their pain. Nevertheless, prescription drug overdoses are increasing markedly in the United States. In the first decade of the 21st century, deaths from prescription drug overdoses exceeded deaths from heroin and cocaine combined.

Palliative care programs for non-terminally ill persons are increasing in physician's offices and hospitals. The programs are expected to evolve, mature, and become a more significant component of the health care system.

### Research on Symptom Assessment

There are significant social and cultural influences on the way people interpret and respond to medical symptoms such as pain. For example, variations in response to pain are based on differing levels of pain tolerance that are culturally prescribed in different ways for women than for men or for members of different ethnic groups.

Zborowski (1969) found that Protestants of British descent tended to respond in a matter-of-fact way to pain, which enabled them to adapt to illness more quickly than other groups. Patients of Irish heritage often repressed their

suffering and tended to deny pain. Both Jewish and Italian patients responded to pain with more open emotionality; however, Jewish patients were primarily concerned about the long-term consequences of their illness and were not much comforted by the administration of pain-killing medication, while Italian patients were more oriented to the current pain and were at least somewhat satisfied when the pain was relieved.

Research focusing on perceived pain in getting one's ears pierced also found significant ethnic differences. Testing both male and female volunteers between the ages of 15 and 25, Thomas and Rose (1991) found that Afro-West Indians reported significantly less pain than Anglo-Saxons, who reported significantly less pain than Asians—all for the same procedure.

What causes these patterns? Both role modeling within families and social conditioning are important influences. As one grows up in a family, there are countless opportunities to observe reaction to pain and alarm expressed by family members. Children's anxiety about receiving painful medical treatment has been shown to be strongly correlated with parental anxiety.

In response to the assessment of symptoms, the individual may decide to deny that the symptoms need attention, delay making a decision until symptoms become more obvious, or acknowledge the presence of an illness. Should an illness be admitted, the person may enter stage 2—the sick role.

## STAGE 2: ASSUMPTION OF THE SICK ROLE; ILLNESS AS DEVIANCE

If the individual accepts that the symptoms are a sign of illness and are sufficiently worrisome, then the transition is made to the sick role, at which time, the individual begins to relinquish some or all normal social roles.

### Background of the Sick Role Concept

The **sick role**, one of the most fundamental concepts in medical sociology, was first introduced

by Talcott Parsons in a 1948 journal article but elaborated upon in his 1951 book, *The Social System*. Parsons emphasized that illness is not simply a biological or psychological condition, and it is not simply an unstructured state free of social norms and regulation. When one is ill, one does not simply exit normal social roles to enter a type of social vacuum; rather, one substitutes a new role—the sick role—for the relinquished, normal roles. The sick role is “also a social role, characterized by certain exemptions, rights, and obligations, and shaped by the society, groups, and cultural tradition to which the sick person belongs” (Fox, 1989:17).

Parsons and other functionalists viewed sickness as a type of deviant behavior in that it is a violation of role expectations. Sickness is assessed as being dysfunctional for the family because when one member is sick and relinquishes normal responsibilities, other members are required to pick up the slack—and may become overburdened in so doing. In addition, sickness is dysfunctional for society. The equilibrium that society maintains can be disrupted when individual members, due to sickness, fail to fulfill routine responsibilities. The “lure” of sickness—the attraction of escaping responsibilities—requires society to exercise some control over the sick person and the sick role so that disruption is minimized.

Sickness is acknowledged to be a special form of deviant behavior; it is not equivalent to other forms of deviance such as crime or sin. Institutions (e.g., law and medicine) are created in society to deal with both behaviors but, while criminals are punished, the sick are provided with therapeutic care so that they become well and return to their normal roles.

Within the context of the social control responsibilities of medicine, society not only allows two explicit behavioral exemptions for the sick person but also imposes two explicit behavioral requirements. The exemptions are as follows:

1. The sick person is temporarily excused from normal social roles. Depending on the nature and severity of the illness, a physician can

legitimize the sick role status and permit the patient to forego normal responsibilities. The physician's endorsement is required so that society can maintain some control and prevent people from lingering in the sick role.

2. The sick person is not held responsible for the illness. Society accepts that cure will require more than the best efforts of the patient and permits the patient to be "taken care of" by health care professionals and others.

In order to be granted these role exemptions, however, the patient must be willing to accept the following two obligations:

1. The sick person must want to get well. The previous two elements of the legitimized sick role are conditional on this requirement. The patient must not get so accustomed to the sick role or so enjoy the lifting of responsibilities that motivation to get well is surrendered.
2. The sick person is expected to seek medical advice and cooperate with medical experts. This requirement introduces another means of social control. The patient who refuses to see a health care professional creates suspicion that the illness is not legitimate. Such a refusal inevitably reduces the patience and sympathy of society and those surrounding the patient.

### Criticisms of the Sick Role

Sociologists today are divided on the sick role's current value as an explanatory concept. The four main criticisms of the concept are briefly described here:

1. The sick role does not account for the considerable variability in behavior among sick persons. Variation occurs not only by age, gender, and ethnicity but also by the certainty and severity of prognosis.
2. The sick role is applicable in describing patient experience with acute illnesses only and is less appropriate in describing persons with chronic illnesses who may not have easily recognizable symptoms (e.g., a buildup

of plaque in the coronary arteries) and may not get well no matter how much they want to and how faithful they are in following the physician's instructions.

3. The sick role does not adequately account for the variety of settings in which physicians and patients interact; it is most applicable to a physician-patient relationship that occurs in the physician's office.
4. The sick role is more applicable to middle-class patients and middle-class values than it is for persons in lower socioeconomic groups. Not everyone can follow this pathway; for example, lower-income persons have less freedom to curtail their normal responsibilities, especially their jobs, and thus have a more difficult time complying with the model.

### Rebuttal to Sick Role Criticism

Talcott Parsons, in a 1975 journal article (he died in 1978), and others have suggested that critics have failed to capture nuances in the sick role concept and see its flexibility (Fox, 1989). For example, Parsons argued that the sick role can pertain to persons with chronic illness—even though they are not "curable," their condition is often "manageable," and they are able to return to many of their pre-illness role responsibilities—and that, as an ideal type, it is unnecessary for the concept to account for all variations.

### Medicalization

While Parsons described the role of medicine as an instrument of social control, many believe that the powers of the medical institution have now expanded far beyond areas of genuine expertise. This has led to **medicalization**, a concept that has two primary meanings. First, an increasing number of behaviors and conditions are being interpreted in medical terms, giving the medical profession increased powers in determining what is normal and desirable behavior; and second, medical practice is understood to be the proper mechanism for controlling, modifying, and eliminating these "undesirable" behaviors.

When sociologists began focusing attention on medicalization in the 1970s, it seemed clear that the medical profession was the primary force behind these efforts, although interest groups and social movements (e.g., the effort to define alcoholism as a medical problem) often played an important role. Today, however, according to Conrad (2005), the stimulus toward medicalization is coming from three other agents: (1) biotechnology [e.g., as the pharmaceutical industry lobbies for medical definitions to conditions (such as male erectile dysfunction) in order to create a market for their drugs (such as Viagra)]: the new concept of **pharmaceuticalization**—“the process by which social, behavioral, or bodily conditions are treated, or deemed to be in need of treatment/intervention with pharmaceuticals by doctors, patients, or both” (Abraham, 2010)—overlaps with medicalization, but is separate in that not all medicalized conditions require drug therapy; (2) consumers (e.g., in seeking to have procedures such as cosmetic surgery paid for by health insurance); and (3) managed care [acting either as an incentive for certain medical procedures (such as its willingness to pay for psychiatric medicine) or a constraint (such as its reluctance to pay for extensive psychotherapy)]. Other examples that illustrate medicalization are the increasing numbers of psychiatric diagnoses, menopause, obesity, baldness, anorexia, posttraumatic stress disorders, social anxiety disorder, and sleep disorders. The point is not that these are unimportant conditions. It is that medical categories and their consequent treatment have been expanded to bring more individuals and life conditions into the medical realm (Conrad and Slodden, 2013).

Freund and McGuire (1999) argue that in contemporary society the power of religious definitions of deviance has declined. Such definitions appear to lack rationality and society-wide acceptance in a religiously pluralistic country. In addition, the force of legal definitions of deviance has declined, even though they appear more rational; they often ultimately come down to the subjective decisions of some small number of people on a jury. In their place, society

has turned to medical definitions of deviance that appear rational, scientifically based, and dependent upon technical expertise rather than human judgment. People may be comforted by the knowledge that “undesirable” behaviors have a nice, neat medical explanation and can be eradicated when sufficient scientific knowledge is accumulated.

The consequences of this medicalization can be interpreted in various ways. Fox (1989) points out that labeling additional behaviors as sickness and extending sick role exemptions to more people may be less stigmatizing and less punitive than relying on religious definitions of sin or legal definitions of crime. Bringing behaviors such as alcoholism, drug addiction, compulsive overeating, and compulsive gambling under a medical rubric introduces a “quality of therapeutic mercy into the way that they are handled” (Fox, 1989:29).

Others argue that defining someone as being sick is ultimately a moral decision in that it requires definition of what is normal or desirable (Freidson, 1988). Medicalizing behaviors leads inevitably to social stigmatization, which has occurred today with conditions such as leprosy, AIDS, pelvic inflammatory disease, and cirrhosis of the liver (Freund and McGuire, 1999). According to this view, rather than being benevolent, the process of medicalization places a societally endorsed stamp of disapproval upon certain behaviors and extends the power of the medical profession over people’s lives. An example follows.

#### **Attention Deficit Hyperactivity Disorder.**

In 1975, Peter Conrad described the medicalization of deviant behavior as it pertained to hyperkinesis (a concept that has evolved today to attention deficit hyperactivity disorder or ADHD). The term refers to a condition that has long been observed in children (about three times more common in males) and is characterized by hyperactivity, short attention span, restlessness, impulsivity, and mood swings—all typically defined as violations of social norms. Prompted by pharmaceutical developments (such as the development and marketing of

Ritalin—a drug that has a depressing effect on those with ADHD) and by parents' groups (who sought medical solutions), the medicalization of ADHD occurred. Today, ADHD is the most commonly diagnosed childhood psychiatric disorder—about 8 percent of children and teens have been diagnosed with ADHD.

By the 1990s, ADHD was increasingly being seen as an adult disease. Individuals who had never been diagnosed with ADHD as children often read about the disease in the popular or professional literature, self-diagnosed it, and presented themselves to physicians wanting pharmaceutical treatment (Conrad, 2007). Today, as much as 5 percent of the adult population has been diagnosed with ADHD, and more than 4 million adults use medication for it. An estimated \$77 billion was spent on medicalized conditions in 2005 (Conrad, Mackie, and Mehrotra, 2010).

Conrad articulated the “up” side of this transition: Hyperactive children are considered to have an illness rather than to be “bad” kids (research has discovered some biochemical differences in the brains of people with ADHD); there is less condemnation of them (it is not their fault) and less social stigma; and the medical treatment may be a more humanitarian form of control than the criminal justice system. In addition, proper diagnosis increases the chances that ADHD kids will have access to appropriately focused educational programs.

On the “down” side, however, identifying the behavior in medical terms takes it out of the public domain where ordinary people can discuss and attempt to understand it; enables the introduction and use of new and powerful drugs (alternatives to Ritalin that include fewer negative side effects are now available and becoming more common); contributes to an “individualization of social problems” by focusing on the symptoms of the child and diverting attention from family and school and other aspects of the social structure that may be facilitating the problem; and depoliticizes deviant behavior—encouraging the view that deviant behaviors are individual problems rather than results of or challenges to the social system.

## Demedicalization

Concern that the medical profession's powers of social control have become too extensive, a countermovement toward **demedicalization** has occurred. It includes such elements as the removal of certain behaviors (e.g., homosexuality) from the American Psychiatric Association's list of mental disorders and the deinstitutionalization of mental health patients (mental patients who can survive outside an institution and are not dangerous are mainstreamed into society). Ironically, both medicalization and demedicalization can occur simultaneously in society.

## Symbolic Interactionism: The Labeling Approach to Illness

Whereas the biomedical approach assumes illness to be an objective state, labeling theory views the definition of illness to be a subjective matter worked out in particular cultural contexts and within particular physician–patient encounters.

Every society has its own particular norms for identifying the behaviors and conditions that are defined and treated as illnesses. These illness definitions are not objective and are not permanently fixed in at least two important ways. First, the definitions differ from culture to culture and change over time within cultures. In the United States, alcoholism was once considered to be a voluntary, criminal act; it is now considered to be a medically treatable illness. Homosexuality used to be considered an illness; now it is more often considered to be biologically predetermined.

Second, applications of the illness label are influenced by social position. Many people might be considered mentally ill for engaging in the same kinds of behaviors for which college professors are labeled “eccentric.” Cocaine addicts, alcoholics, and people who abuse Valium are all medically defined in different ways even though all may be experiencing chemical substance abuse. The stigma (or lack of it) is certainly influenced by the individual's social standing.

Application of the illness label is especially important because labels influence how a person is treated. Individuals who have received mental health care may always be viewed somewhat differently than people who have not received such care, even after treatment ends and mental health is restored. Likewise, someone who is diagnosed with cancer may forever be considered fragile even if the cancer is successfully combatted.

### The Work of Eliot Freidson

Eliot Freidson (1988) has devised a scheme to illustrate (1) that variations in the sick role do exist depending on one's illness, (2) that how sick people are treated depends upon the imputed seriousness of their disease and whether or not it is stigmatized within the society, and (3) that the illness label is not objective but rather a reflection of societal norms and cultural traditions. Freidson asserts that certain conditions are typically considered to be the responsibility of the sick person, and that society often responds negatively to these persons, much as they would respond to one who has broken the law. Examples of these conditions

would include AIDS and other sexually transmitted infections, alcohol-related diseases, and, increasingly, smoking-related diseases.

In part, the likelihood of stigma relates to the perceived seriousness of the disease, that is, the extent to which it deviates from normality. The consequent stigma results from societal definition; diseases that are stigmatized in one society may be relatively accepted in others (e.g., leprosy is highly stigmatized in India but much less so in Sri Lanka and Nigeria) (Freund and McGuire, 1999). A person with a socially stigmatized disease is much more likely to be looked down upon or victimized by discrimination than a person with a disease not so labeled.

Freidson's typology (see Table 7-1) considers both the extent of deviation from normality created by a disease (its "imputed seriousness") and the extent of stigmatization of persons with the disease (its "imputed legitimacy"). Illness states produce one of three types of legitimacy:

1. *Illegitimate (or stigmatized illegitimacy)*, which provides some exemption from role responsibilities but few additional privileges and may carry social stigmatization. Freidson

**TABLE 7-1** Freidson's Model of Types of Illness (Deviance) for Which Individual Is Not Held Responsible

Imputed Seriousness	Illegitimate (Stigmatized)	Conditionally Legitimate	Unconditionally Legitimate
Minor deviation	<p><b>Cell 1</b> "Stammer"</p> <p>Partial suspension of some ordinary obligations; few or no new privileges; adoption of a few new obligations.</p>	<p><b>Cell 2</b> "A cold"</p> <p>Temporary suspension of few ordinary obligations; temporary enhancement of ordinary privileges. Obligation to get well.</p>	<p><b>Cell 3</b> "Pockmarks"</p> <p>No special change in obligations or privileges.</p>
Serious deviation	<p><b>Cell 4</b> "Epilepsy"</p> <p>Suspension of some ordinary obligations; adoption of new obligations; few or no new privileges.</p>	<p><b>Cell 5</b> "Pneumonia"</p> <p>Temporary release from ordinary obligations; addition to ordinary privileges. Obligation to cooperate and seek help in treatment.</p>	<p><b>Cell 6</b> "Cancer"</p> <p>Permanent suspension of many ordinary obligations; marked addition to privileges.</p>

Source: Eliot Freidson, *The Profession of Medicine: A Study in the Sociology of Applied Knowledge* (Chicago: University of Chicago Press, 1988).

considers stammering (Cell 1) to be a minor deviation from social norms, and epilepsy (Cell 4) to be a serious deviation. Because of the stigma attached, both present challenges to persons with either of the conditions. See the box “Labeling Theory and Stuttering.”

2. **Conditional legitimacy**, which provides temporary exemption from role responsibilities with some new privileges—provided that the individual seeks to get well. Cell 2 (a cold) and Cell 5 (pneumonia) are Freidson’s examples of a minor and a serious deviation from social norms, respectively, and ones that are considered legitimate.
3. **Unconditional legitimacy**, which provides permanent and unconditional exemption from role responsibilities due to the hopelessness of the condition. Cell 3 (pockmarks) is the example of a minor deviation, and Cell 6 (cancer) exemplifies a serious deviation.

### STAGE 3: MEDICAL CARE CONTACT/ SELF-CARE

When Suchman’s “stages of illness experience” was devised, the third stage was labeled as “medical care contact” and described as the

point at which an individual sought professional medical care. Today, medical sociologists are much more aware of the variety of options available to persons who have entered the sick role, the increasingly common practice of **self-care**, and the importance of the individual’s social and cultural environment in shaping the action taken.

How do people decide how to behave in response to being sick? Borrowing from *rational choice theory*, one common approach has been to view sick individuals as people who have preferences and goals in life, who often meet constraints in satisfying these preferences, and who must make choices from available options. The rational individual will identify possible options, determine the advantages and disadvantages of each option, and then select the option that will maximize the opportunity to satisfy preferences. A sick individual, for example, might consider the cost, availability, and convenience of seeing a medical doctor and recall the satisfaction or dissatisfaction produced in a prior visit.

Bernice Pescosolido believes that this approach focuses on the individual too much and that it fails to include the important influence of social relationships. She advocates for a **social organization strategy (SOS)** that emphasizes the importance of social interaction



#### IN THE FIELD

##### LABELING THEORY AND STUTTERING

Since childhood, I have had a stutter that makes a regular appearance in my oral interactions and, at one time or another, has affected nearly all facets of my life. My frustrated parents and I tried in vain to locate a solution, they hoping that years of speech therapy would pay off, me dreaming for a miracle cure that could instantly remove this painfully humiliating trait . . . At the end of one school year, some of the other children in my therapy group received certificates of accomplishment. When I questioned the therapist as to why I didn’t get one, she explained that, unlike me, the other children had achieved the goal of fluency and

were therefore being rewarded. Most likely, she used this as a means of encouraging those of us who “failed” to try harder to succeed the next year, but to me this seemed a direct indication that my stutter was *my* fault, and that I was a less adequate person because of it . . . When one is being told repeatedly that stuttering is bad and that one should attempt to eliminate it, any instance of dysfluency will contribute to the individual’s sense of despair and hopelessness . . . The definitive labels I received from myself and others only served to more deeply ingrain me in the role of a “stutterer” (Hottle, 1996).

**TABLE 7-2** The Range of Choices for Medical Care and Advice

Option	Advisor	Examples
Modern medical practitioners	M.D.s, osteopaths (general practitioners; specialists), and allied health professionals	Physicians, psychiatrists, podiatrists, optometrists, nurses, midwives, opticians, psychologists, druggists, technicians, and aides
Alternative medical practitioners	“Traditional” healers	Faith healers, spiritualists, shamans, curanderos, diviners, herbalists, acupuncturists, bonesetters, and granny midwives
	Modern healers	Homeopaths, chiropractors, naturopaths, nutritional consultants, and holistic practitioners
Nonmedical professionals	Social workers	Police and lawyers
	Legal agents	
	Clergymen	
	Supervisors	Bosses and teachers
Lay advisors	Family	Spouse and parents
	Neighbors	
	Friends	
	Coworkers and classmates	
Other	Self-care	Nonprescription medicines, self-examination procedures, folk remedies, and health foods
None		

Source: Bernice Pescosolido, “Beyond Rational Choice: The Social Dynamics of How People Seek Help,” *American Journal of Sociology*, 97:1096–1138, 1992.

and social networks as “the mechanism through which individuals learn about, come to understand, and attempt to handle difficulties” (1992:1096). Viewed this way, the decision about how to respond to sickness is “socially constructed”—it occurs in interaction with and consultation with others and is centered in the routine of daily life.

In the SOS approach, illness careers start with an event that sets into motion a process of attempting to cope with a physical or emotional problem, given an ongoing structured system of social relations. These attempts at coping are created in negotiation with others and constrained by social structure. (Pescosolido, 1992:1114)

The SOS approach emphasizes that responding to illness is a process—rather than making a single choice, sick persons continue to talk with others, solicit advice, and possibly use a variety of professional, semiprofessional, and

lay advisors until the matter is resolved or until options are exhausted. Table 7-2, condensed from Pescosolido, identifies some of the many medical care options from which people select.

Drawing on conversations with patients in internal medicine clinics, disabilities clinics, and HIV counseling and testing sites, Maynard (2006) found strong evidence for the importance of social relationships in assessing the meaning of particular diagnoses. Frequently, the physician or the patient or a family member/significant other of the patient suggest what the diagnosis news means for the patient. Then, one of the other participants either accepts or rejects that meaning and extends the discussion. All of the participants tend to work toward alignment—that is, agreement about the short-term and long-term effects on the patient.

Emotional responses can be exhibited throughout this discussion, and these can cover a wide range: shock, anger, sadness, threat of

loss, and uncertainty. It is said that some people lose their faith and others find it. Some focus more on short-term pain and others on fear of death. Patients who have gone through this process urge that it is important to allow these emotional responses and then move attention as soon as is practical to specific responses: learning more about the condition, considering possible treatments, contacting appropriate medical providers and other resources, and taking care of daily-life considerations such as job and family responsibilities. These responses often occur within social relationships.

Hunt, Jordan, and Irwin (1989) conducted extensive interviews with 23 women about their illness experiences just before seeing a physician and at 2, 6, 10, and 15 weeks postconsultation, and they also interviewed their physicians and collected information from their charts. All the women in the sample reported at least two non-specific symptoms such as dizziness and fatigue.

How did these women's understanding of their illnesses evolve? The researchers discovered that each woman brought several sources of information into the process, including prior medical history, ongoing experiences, and interaction with others. Each woman had evaluated her problems prior to seeing the physician and, in part, interpreted the physician's diagnosis in light of these prior understandings and thoughts.

In almost all the cases, the physician's diagnosis was not simply accepted or rejected by patients but rather transformed and incorporated into the understanding of the illness they had prior to the consultation. The diagnoses were also filtered through previous and current observations of others and comments and advice offered by those in the patient's social world. Over the four-month period, the patients continually adjusted and reworked the construction of their illnesses.

The next two sections in this chapter examine two of the many options for responding to illness: seeking professional medical care and self-care.

### The Decision to Seek Professional Care

In Chapter 6, we emphasized the importance of considering both macro (social structural) and micro (individual decision making) factors as influences on participation in health behaviors. Both factors are also important influences on the decision about seeking professional medical care. Ronald Andersen and Lu Ann Aday, who have helped to guide sociological thinking about the use of medical services, developed a framework for examining access to care that includes both structural and individual factors.

They posit that access to care can best be understood by considering (1) the general physical, political, and economic environment,



The decision to seek formal medical care is shaped by many factors, including the patient's age and gender, the perception of the illness, and the social situation. Here, a radiologist explains the results of a set of X-rays to a patient.

(2) characteristics of the health care system, including health care policy and the organization and availability of services, and (3) characteristics of the population including those that may *predispose* one to use services (age, gender, and attitudes about health care); those that *enable* one to use health services (income and health insurance coverage); and the *need* for health services (Andersen, Aday, and Lytle, 1987; Andersen, 1995; Andersen, 2008).

The ability of this model to predict use of services has been affirmed in much research. McEwen (2000) has used data from a national health survey to determine the predictive ability of the model with respect to postponement of needed medical care and to the presence of unmet medical need. She found that the best prediction of these dependent measures occurred when all three of the predisposing, enabling, and need factors were considered.

Concentrating more on the individual level, DiMatteo and Friedman (1982) have specified three factors that influence the decision to seek care:

1. **The background of the patient.** Propensity to see a physician is influenced by such factors as age, gender, race and ethnicity, and social class. For example, men are often more reluctant than women to see a physician, and many married men schedule an appointment only when pressured by their wives to do so (estimates are that women make 70 percent of all health care decisions). Many (especially older) men prefer to “tough it out” and are embarrassed to discuss such matters as sexual dysfunction, prostate enlargement, and depression.
2. **The patient’s perception of the illness.** Zola (1973:677–689) has identified five **social triggers** that influence the judgment that the symptoms need professional health care: (a) perceived interference with vocational or physical activity, especially work-related activity; (b) perceived interference with social or personal relations; (c) an interpersonal crisis; (d) a **temporalizing of symptomatology** (setting a deadline—if I’m not

better by Monday, I’ll call the physician); and (e) pressure from family and friends.

3. **The social situation.** Even for pain that may relate to a serious condition, situational factors matter. Symptoms that begin during the week, rather than on the weekend, are more likely to motivate prompt contact with a physician, as do symptoms that appear at work and those that appear when other people are present (DiMatteo and Friedman, 1982).

### Use of Medical Care Services

Americans average about five or six physician contacts each year. However, this average camouflages significant differences among population subgroups. Overall, number of contacts increases significantly with age and is higher for females than males, and is highest among people in the lowest income category.

The following section describes patterns in the utilization of health services among several important population subgroups.

#### The Poor and the Medically Indigent.

People below the poverty level and those just above it often have difficulty gaining access to quality medical care. Since the late 1960s (and largely as a result of Medicaid and Medicare), the poor have averaged as many or more physician contacts each year as the nonpoor. However, relative to their greater medical need, the poor continue to have lower access. And the lowest utilization rates relative to need are found among those just above the poverty level. These persons—often called the *medically indigent* or the *working poor*—earn just enough money to fail to qualify for Medicaid but not enough to afford private medical care.

Most of the medically indigent lack any form of health insurance (about 47 million Americans lacked health care coverage in 2010). Most are in households with a wage earner who works in a job that does not offer health insurance as a benefit. The other largest groups of people without insurance are unemployed persons and their families who have lost their health insurance along with their jobs and those with major

health problems who cannot afford an individual insurance policy (or who have been denied insurance altogether due to their condition).

The use of health care services by the poor differs from the nonpoor in at least three other important respects. First, the poor are much less likely to have a regular source of care—that is, a physician who is routinely seen for health care problems or services. Often, this is due to the lack of physicians in low-income areas.

Second (as a consequence of the first), the poor are much more likely to use a hospital emergency room (ER) or outpatient department as a routine care site. While this is not an efficient use of services (care in the ER is more expensive) and may be resented by hospital staff, these may be the only available and convenient facilities (Rust et al., 2008). These public hospital and clinic sites tend to be larger, busier, colder, and more impersonal than medical offices. Waiting time to see a physician may be very long—sometimes most of a day. Staff members are often fiercely overworked and have little time for patients. The actual physician–patient encounter may be hurried and abrupt, with little warmth and little investigation of a patient’s psychosocial concerns. Often, this encounter is not a satisfying experience for the patient or the physician. This “health care system barrier” reduces the likelihood of the poor receiving medical services.

Third (partially as a consequence of the first two), low-income persons are much sicker when they are admitted to a hospital and require longer hospital stays. Due to the higher rates of disease and illness in poor communities, the lack of access to ambulatory care, and the lack of adequate financial resources or health insurance coverage to pay hospital costs, the poor often become very sick before admission occurs.

In order to study this pattern, Epstein, Stern, and Weissman (1990) interviewed almost 17,000 patients admitted to five Massachusetts hospitals. They collected information on three components of socioeconomic standing (income, occupation, and education) and several aspects of the hospital stay. Patients in the lowest socioeconomic group had hospital stays 3 to

30 percent longer than patients of higher socioeconomic status. Hospital charges were 1 to 18 percent higher, reflecting the longer stay and greater number of services provided. These patterns held even when age and severity of illness were controlled. A separate study of a national sample of hospitals found that patients who were uninsured at the time of admission were much sicker and 1.2 to 3.2 times more likely to die while in the hospital (Hadley, Steinberg, and Feder, 1991).

The inability to respond to health problems occurs throughout the spectrum of health care services. For example, low-income persons and the medically indigent often forego needed dental services. They are prevented by cost considerations from getting regular check-ups, and often they even try to get by without professional dental care when there are serious and painful dental problems. Programs that provide free dental care are often forced to concentrate on tooth extractions because the underlying problem has gotten extremely painful. Some organizations have been created to establish volunteer-based free dental days within communities. Recently, a two-day dental clinic in a community of 225,000 people provided needed dental care for more than 1,000 individuals and had to turn another 1,000 away because there wasn’t sufficient time or personnel. Many of those who received care stood in line all day for the opportunity to receive dental care. Of the patients seen, almost 700 had at least one tooth extracted, and the average number extracted was four.

For an international comparison, see the box, “Disparities in Primary Care Experiences by Income.”

**The Homeless.** The homeless population in the United States is in great need of mental and physical health care services but is not receiving them. Estimates of the prevalence of psychiatric disorders among the homeless range from 25 to 50 percent, and estimates of previous psychiatric hospitalization range from 15 to 42 percent. Research has consistently found very high levels of need for physical and mental health services but very few services received (Wood et al., 2010).

**Racial and Ethnic Minorities.** In recent years, the black–white disparity in utilization of health care services has almost disappeared. However, significant differences remain in other aspects of use patterns. Blacks are less likely than whites to have a regular source of health care and are more likely to secure care in hospital outpatient clinics, ERs, or community health centers. Research has documented that racial and ethnic minorities experience more difficulty in getting an initial and follow-up appointments with a physician and wait longer during an appointment. These disparities persist even after health status and socioeconomic status are controlled (Shi, 1999).

In addition to economic reasons, another factor accounting for these patterns is the lack of services in black communities in inner-city areas of large metropolitan cities and in rural areas, especially in the Southeast. These are the two areas of the country most underserved

by physicians. This shortage makes it difficult for physicians who are located in these areas and complicates the patients' efforts to find a physician with whom to establish a continuing relationship. Since persons with a regular source of care tend to be more satisfied with their physician, other benefits accrue, including higher compliance rates.

Despite very high levels of mortality and morbidity, Hispanics have the lowest utilization rate of medical services of any racial or ethnic group in the United States. Only about half as many Hispanics as whites have a regular source of medical care; they are twice as likely to use a hospital ER as a regular source of care; they are much more likely to be admitted to a hospital through an ER; and they are likely to be much sicker at the point of admission (indicating delay in seeking services), resulting in longer and more expensive hospital stays. Hispanics are much less likely to initiate prenatal care in



## IN COMPARATIVE FOCUS

### *DISPARITIES IN PRIMARY CARE EXPERIENCES BY INCOME*

In 2006, the Commonwealth Fund, a respected private foundation that seeks to improve the health care system, reported on a 2004 study of the use of primary care by adults in five countries: the United States, Australia, Canada, the United Kingdom, and New Zealand. The report authors summarized:

Given the strong correlation worldwide between low income and poor health—including disability, chronic disease, and acute illness—it is especially critical for people with limited incomes to have ready access to medical care. Inequities in access can contribute to and exacerbate existing disparities in health and quality of life, creating barriers to a strong and productive life. (p. xiii)

How did the United States fare in the comparison?

Overall, the report finds a health care divide separating the U.S. from the other four countries.

The U.S. stands out for income-based disparities in patient experiences—particularly for more negative primary care experiences for adults with below-average income. (p. xiii)

On 16 of the 30 specific measures of primary care experience for below-average income patients, the United States ranked last. U.S. patients were most likely to go without care because of costs; most likely to have difficulty getting care at night, during weekends, or on holidays without going to the emergency room; most likely to report duplication of medical services (due to lack of coordination of care); and most likely to rate their encounter with the physician as being only fair or poor. The gap between above-average income patients and below-average income patients was by far the largest in the United States (Huynh et al., 2006).

the recommended first trimester and are three times less likely to receive any prenatal care whatsoever.

Several factors are responsible for these differential utilization patterns, including lower family incomes, a greater likelihood of having a job that does not offer health insurance, and a lack of accessible health care services for Mexican American farmworkers and those who live in inner-city areas of large cities. Even when services are available, communication difficulties due to the absence of an interpreter and cultural differences with providers often represent important barriers.

**Age.** Older persons are consistently the heaviest users of health care services. Persons over 65 years of age receive more preventive care than do younger people and visit physicians more frequently in response to medical need. Although people over age 65 comprise only about 12 percent of the U.S. population, they account for one-third of all personal health care expenditures.

**Gender.** Consistent differences exist in utilization of health care services between women and men. Women use more physician services, are more likely to have a regular source of care, receive significantly more preventive care, take more medications, are more likely to visit outpatient clinics, and are more likely to be hospitalized. On the other hand, men are more likely to use ER services.

Why do women and men have such different utilization patterns? Perhaps the most obvious reason—the extra use of services by women for reproductive care—explains only part of the difference (reproduction accounts for only about 20 percent of women’s physician contacts). More important factors are the greater number of illnesses reported by women (need for care being an important predictor of use) and the greater willingness of women to seek professional health care.

Gender roles are clearly implicated with the latter reason. Women are socialized to be more sensitive to medical symptoms, and once

symptoms are perceived, to take them more seriously. Once this evaluation has occurred, women find it easier to seek medical assistance; therefore, they show a higher utilization rate. On the other hand, men often exhibit a reluctance to get checkups, required screening tests, and medical attention for problems as diverse as depression, substance abuse, physical disability, and stress (Galdas, Cheater, and Marshall, 2005). Recent research has traced at least some of this pattern to the traditional sex role of men: a sense of immunity and immortality, difficulty relinquishing control, and a reluctance to seek help (Springer and Mouzon, 2011). See the accompanying box, “Gender and the Use of Medical Services in Rural India.”

### The Concept of Self-Care

Self-care describes the broad range of behaviors initiated by individuals to promote optimal health, prevent illness, detect symptoms of ill health, heal acute illness, and manage chronic conditions. It includes obtaining information about health and illness, doing self-screening exams, managing one’s own illness, including self-medication, and formulating clear goals and preferences regarding end-of-life treatment decisions. Although the term “self-care” implies an individual behavior, these practices occur within a social network and are very much influenced by family, friends, and cultural norms.

However it is defined, it is clear that self-care practices are an extremely common and routine response to illness symptoms and are practices that are pervasive throughout the population. A national study found that more than five in six persons age 55 and older had experienced at least one illness symptom in the previous six months for which they relied on self-care only. Almost 90 percent of these respondents assessed their health care efforts as being good, very good, or excellent (Kart and Engler, 1994).

**The Self-Help Movement.** Reliance on **self-help** is certainly not a new concept. Since the earliest civilizations, people have taken personal measures to protect their safety and



## IN COMPARATIVE FOCUS

### GENDER AND THE USE OF MEDICAL SERVICES IN RURAL INDIA

While certain cultural norms in the United States discourage males from seeking professional medical care, the opposite pattern is evident in some parts of rural India. Even in areas where health services are readily available, certain cultural values related to gender ideology and gender-based behavior influence women to underuse medical care. To better understand this pattern, Kumar (1995) spent nine months in a rural village in northern India conducting a general household survey and open-ended interviews with married women.

Married women in the village observe *ghungat* (veiling), which includes covering the face with a veil and complying with a set of restrictions on speech, mobility, and social relationships. The female body is associated with shame for reasons that relate to ideas about cleanliness (menstruation and childbirth add even further restrictions due to the powerful meaning ascribed to blood as a particularly dirty substance), the necessity of maintain-

ing pure patrilineage, and fear of uncontrolled sexuality. Women are financially dependent on men, although men are dependent on women to manage the home and raise the children. *Ghungat* is viewed as a practice that honors both men and women because it is a visual expression of the acceptance of the greater power of males and their control over females.

When sick, married women's access to medical care is limited by the necessity of having the husband's approval to seek care, by not having direct access to financial resources, and by the difficulty of taking time off from household chores. Limitations in movement throughout the village and a requirement of not visiting the health center alone are further discouragements as is the perceived inappropriateness of having a male physician "look at" parts of her unclothed body. These cultural restraints explain the lesser use of medical services by women than men and the fact that women are sometimes not seen until an advanced stage of illness.

well-being and deal with illnesses. However, the advent of modern scientific medicine shifted primary responsibility for managing health and illness from the individual and family to the physician. Now, there is renewed interest among both the general public and many health care professionals in shifting the overall management of health care from the professional back to the individual.

At least three key factors should continue to sustain this movement:

1. The increasing amount of health-related information available on the Internet and the increasing number of people who use this information is an important part of the self-help movement.
2. An expansion of alternative medical philosophies and clinical approaches that place primary responsibility for health on the individual rather than on the professional. These include behavioral approaches, concepts of holistic health, and therapies derived from Eastern philosophies (e.g., yoga, meditation, and biofeedback).
3. Increasing health care costs have inspired potential savings from more vigorous health promotion and disease prevention efforts. Studies indicate that persons who use self-care practices reduce both the number of visits to physicians and the number of days in the hospital, and that the commonplace use of self-selected, over-the-counter drugs saves the nation millions of dollars each year in physicians' fees. One study asked a panel of physicians to evaluate the self-care practices of a random sample of people; they judged only 2 percent of their actions to be medically inappropriate (Wilkinson, Darby, and Mant, 1987).



An important part of the self-help movement is the self-selection of a wide variety of vitamins and herbs that are now readily available in natural food stores, grocery stores, drug stores, and other outlets.

**Self-Help Groups.** In recent years, there has been tremendous growth in the number of self-help groups—groups of individuals who experience a common problem and share their personal stories, knowledge, and support to help one another. An estimated 10 to 15 million persons annually participate in the nation’s half million-plus self-help groups, and more than 30 million persons have participated at some time. Groups have been organized around almost every conceivable disease, addiction, and disability. See the box “Selected Self-Help Groups.”

Social support groups can provide significant benefits for members. One study of 232 members in 65 different disease-related groups revealed that most members reported many positive changes in psychosocial well-being (a reduction in emotional stress and a stronger feeling of being safe and sheltered), in feelings of competence (learning new behaviors and

more self-confidence), in greater participation in social life (more social activities and more interest in helping other people), and in knowledge and understanding of their disease and its treatment. Less than one-fourth however, reported improvement in physical symptoms or a reduction in physical impairment. Participants did report making more demands on professional helpers due to their ability to express their needs and their desire to play a more active role in the management of their diseases (Trojan, 1989).

A study of self-help groups for parents of children with cancer found that the group increased members’ confidence and willingness to work with others for changes in the medical care system that would benefit their children or others with cancer. Thus, members were inspired not only to become more active as individuals or in family units but also to engage in social activism (Chesney and Chesler, 1993).



## IN THE FIELD

### SELECTED SELF-HELP GROUPS

Alcoholics Anonymous	Impotence Anonymous
Al-Anon and Alateen	Infertility Support Group
Alliance for the Mentally Ill	La Leche League
Alzheimer's Support Group	Menopause Support Group
Breast Cancer Support Group	Multiple Sclerosis Support Group
Bereavement Support Group	Narcotics Anonymous
Bulimia, Anorexia Self-Help	Overeaters Anonymous
Cocaine Anonymous	Parkinson's Support Group
Co-Dependents Anonymous	Parents Anonymous
Compassionate Friends (Bereaved Parents)	Parents of Children With Asthma
Concerned United Birthparents	Parents Without Partners
Crohn's and Colitis Foundation of America	Sex Addicts Anonymous
Diabetes Support Group	Shhh (Hard-of-Hearing)
Exceptional Cancer Patients	Step-Family Association of America
Fathers United Inc.	Suddenly Single
Gamblers Anonymous	Veterans Outreach Program
Grief Support Group	Weight-Watchers

## STAGE 4: DEPENDENT-PATIENT ROLE

The patient enters the fourth stage, the dependent-patient role, when the recommendation of the health care provider for treatment is accepted. This also creates new role expectations that include increased contact with the provider and altered personal relationships. The patient is expected to make every effort to get well. Some people, of course, enjoy the benefits of this role (e.g., increased attention and escape from work responsibilities) and attempt to malingering. Eventually, however, the acute patient will either get well and move on to stage 5 or terminate the treatment (and perhaps seek alternative treatment).

## STAGE 5: RECOVERY AND REHABILITATION

The final stage of Suchman's schema for patients with acute illnesses occurs as the treatment succeeds and recovery occurs. As that happens, the patient is expected to relinquish the sick role and move back to normal role

obligations. For chronic patients, the extent to which prior role obligations may be resumed ranges from those who forsake the sick role to those who will never be able to leave it. An interesting subfield of sociology that has developed in recent years is *Animals and Society*.

As the boxed insert, "The Role of Animals in Human Therapy," describes, the animal-human bond has important implications for health and rehabilitation.

## EXPERIENCING CHRONIC ILLNESS, IMPAIRMENT, AND DISABILITY

While patients usually survive acute illnesses and recover from them, other conditions continue over time. This section of the chapter focuses on three such conditions. A **chronic illness** is one that is ongoing or recurrent and one that typically persists for as long as the person lives. Diabetes is an example of a chronic illness. While it can be treated with insulin, there is no cure for diabetes, and it never disappears. An **impairment** is the loss of some anatomical or physiological function, such as



Animals now assist in a variety of therapeutic procedures, and positive interaction with animals has been found to provide important benefits for human health.

a limb amputation or paralysis. A **disability** can be said to be the consequence of an impairment, such as an inability to walk or climb stairs (Freund and McGuire, 1999).

### Relationships Among Chronic Illness, Impairment, and Disability

Although some individuals with chronic illness become impaired and disabled, this is not



## IN THE FIELD

### THE ROLE OF ANIMALS IN HUMAN THERAPY

Research has begun to document the health benefits for humans who interact positively with animals. Interaction with animals has been shown to have (1) *preventive benefits for health* (reduced stress, lower blood pressure, and greater happiness); (2) *therapeutic benefits* (riding horses is helpful in the physical rehabilitation of the developmentally disabled, animals can assist with the emotional recovery of battered women and their children, they assist with loneliness of groups such as the elderly or those with HIV disease, and they are valuable in working with stroke victims and those with orthopedic problems), and (3) *recovery and rehabilitation benefits* (one major study examined the influence of hundreds of physical, social, and economic factors on the long-term survival of patients released from a hospital coronary care unit—the most important influence was the extent of the damage to the heart tissue itself, but the second largest influence was living with a pet. Less

than half the patients had a pet, but they were four times less likely to die). In addition, service dogs and guide dogs are trained to help individuals who require physical assistance in order to maintain an independent life.

Why do these benefits occur? Research has identified that companion animals help fulfill (1) *social-psychological needs* such as contact, comfort, a feeling of being needed, unconditional love, empathy, patience, relaxation, and coping with stress; (2) *physical needs* such as more exercise (dog owners walk much more); and (3) *help with child socialization* in that children raised with an animal have been found to be more nurturing, have a greater sense of responsibility, and have more social and less self-absorbed behavior. (Based on material from *Kindred Spirits* by Allen M. Schoen, D.V.M., M.S., copyright 2001 by Allen M. Schoen. Use by permission of Broadway Books, a division of Random House, Inc.)

inevitable. Many chronically ill persons are neither impaired nor disabled, and the impairments and disabilities of many people can be traced to trauma, accidents, injuries, and genetic disorders rather than chronic illness (Bury, 1999).

Often, chronic illnesses have an insidious onset (cancer and coronary heart disease are examples) and are characterized early on by symptoms that are not immediately detectable. Eventually, most chronic illnesses can be identified by diagnostic laboratory procedures. Likewise, impairment is a relatively objective medical term with specific referents to anatomy or physiological function. On the other hand, **disability** is more of a relational concept—it is rarely entirely present or absent in any individual, but rather its presence is often a matter of degree. It is a more subjective term in that it can only be understood by considering an individual within cultural context (Bury, 1999).

Traditional biomedical definitions of disability tended to draw a firm link between impairment and disablement: a biologically impaired individual was a disabled individual. However, many sociologists believe this approach focuses too much on the individual outside of any social context. They prefer a **social model of disability** that posits that restrictions in activities or functions experienced by individuals are the result of a society that has not made appropriate accommodations. According to David Mechanic:

In the older conception, while disability deserved public sympathy and assistance, it was viewed in essence as a personal problem that required considerable withdrawal from usual activities. The contemporary view has had a transformative influence in its implication that persons with almost any impairment can meet most of the demands of everyday living if they adopt appropriate attitudes and if physical, social, and attitudinal barriers are removed. (1995:1210)

From this perspective, disability occurs only when there is an absence of “fit” between the capabilities of persons and the physical environment in which they live. This gap can partially be addressed at the individual level (e.g., modifying the impairment, increasing patient motivation, and teaching coping strategies)

but must also be addressed through social policy and environmental remediation (e.g., providing assistive devices, removing unnecessary physical barriers, and ensuring fair treatment). In the last few years an abundance of research has clearly demonstrated the importance of the “built environment” on reducing barriers to full participation in society (Barnes and Mercer, 2010; Clarke et al., 2011).

### Living With Chronic Illness and Disability

Experiencing chronic illness and/or disability typically involves a period of assessment, emotional adjustment, and mental and physical accommodation. Research has identified at least five very important concerns shared by many chronically ill and disabled persons:

1. **Impairment of personal cognitive functioning.** Patients may be concerned that their illness will progress to a point that their cognitive functioning ability may be impaired or that medications will have a dulling effect on memory, reasoning ability, and capacity for communication.
2. **Loss of personal independence.** Many people deeply value their independence and appreciate it even more when it is threatened. Reliance on others may be a devastating thought—because of the inconvenience and, in a larger sense, the idea of becoming a burden on others.
3. **Changes in body image.** For patients whose illness creates any dramatic alteration in physical image, a major readjustment may be needed. Many people view themselves as physical as much as or more than mental beings; any change in body image is significant.
4. **Withdrawal from key social roles.** Because so many people derive their identity from their work, any disruption in work pattern or work accomplishment is very threatening. If remuneration is affected, an extra emotional burden is created. The withdrawal from key family responsibilities may be of paramount concern along with anxiety about creating

more work for other family members. This withdrawal and concern about it can jeopardize family cohesiveness.

5. **The future.** Any chronic or disabling condition raises questions about the patient's future and the extent to which there will be further incapacitation or physical or mental limitations, and questions about financial indebtedness and permanent losses in daily activities.

### The Impact on Sense of Self

Having a chronic illness or disability challenges the individual's sense of self. Patients may have to get accustomed to significant changes in the body, in lifestyle and interaction, in prolonged regimens of medication, in continuing bureaucratic hassles with the medical care system, and sometimes with disabling pain.

Based on more than 100 interviews with 55 persons, Charmaz (1991) has described how experiencing a progressively deteriorating chronic illness can reshape a person's life and sense of self. People experience chronic illness in three ways: as an *interruption in life*, as an *intrusive illness*, and as an *immersion in illness*.

At first, a person with a chronic illness may notice the disruption in life. There is time spent hoping for the best and trying to convince oneself that things will work out. Difficult times lower hopes and increase fears that important life events will need to be sacrificed. A bargaining process may occur when the person promises to do whatever can be done to feel better. Not fully comprehending chronicity, ill persons seek recovery and, in so doing, maintain the same image of self and keep the illness external, not allowing it to become an essential part of one's being. Only through time and the words and actions of others do the meanings of disability, dysfunction, and impairment become real.

Chronic illness becomes intrusive when it demands continuous attention, more and more time, and significant accommodations. Intrusion happens when the illness is recognized as a permanent part of life—when symptoms and treatments are expected and planned around.

The ill person loses some control over life but may work to maintain some control and to boost self-esteem. Limits may be placed on the illness—for example, allowing one's self a certain number of bad days. Efforts are made to prevent the illness from occupying more and more of one's time and being.

Immersion occurs as the illness begins to dominate life. Responsibilities are surrendered, and days are dominated by dealing with the illness. "No longer can people add illness to the structure of their lives; instead, they must reconstruct their lives upon illness" (Charmaz, 1991:76). They face physical and maybe social and economic dependencies; their social world shrinks; and more and more of each day is ordered by the routines demanded by the illness. People turn inward, become more socially isolated, and begin challenging their own identity ("How can I continue to be myself while having relentless illness?") (Charmaz, 1991:101).

The trajectory of self-image for those with traumatic but stable disabilities may differ in some ways. In a study of 35 adults with traumatic spinal cord injury, Yoshiba (1993) found that patients actively sought to "reconstruct" the self, and this process swung back and forth like a pendulum between the nondisabled and the disabled aspects of self. At any one time, these adults had a "predominant identity view" that at one extreme emphasized the former non-injured self and at the other extreme emphasized the disabled identity as the total self. Between the extremes were several gradations based primarily on the extent of dependence on others. She discovered that the primary identity view is dynamic and shifting and can be very fluid from one day to another and/or one situation to another.

Moreover, with the possible exception of the disabled identity as the total self, Yoshiba's respondents contradicted the popular perception that having a disability is a totally negative experience. Some shared with her examples of activities for which they had never previously had time, and several spoke of their personal maturation in dealing with the situation. These

experiences are akin to observations of chronically ill and disabled patients made by Lindsay (1996). She noted a constant striving for “health within illness” among her respondents as many sought to identify or achieve positives from their condition.

Further confirmation of this perspective comes in research by Pudrovska (2010). She compared the trajectory of personal growth among those who had had cancer and those who had not for three age cohorts (those born in the 1940s, 1950s, and 1960s; those born in the 1930s; and those born in the 1920s). For those in the oldest cohort, cancer did accelerate decline in personal growth (an impairment trajectory). However, dealing with cancer neither accelerated nor decelerated decline in personal growth for those in the middle group (a resilient trajectory), and dealing with cancer actually slowed decline in personal growth for those in the youngest age cohort (a thriving trajectory). She referred to this as psychological growth in response to an adverse event.

### The Role of Social Stigma

The adjustment of persons with a chronic illness or disability can be very much influenced by the manner in which they are treated by others. When others view an illness or disability in a demeaning manner, they impose a **stigma** or deeply discrediting label on the individual. The stigmatizing attitudes of others can have a pronounced effect on an individual’s sense of self.

People with AIDS in American society are stigmatized when others try to avoid or ostracize them, disparage them or their disease, and label them in negative terms. Weitz (1991) points out that stigma is a central concern during all phases of the illness from before diagnosis (when individuals must be concerned about the consequences of being tested for HIV), to living with the illness (and being differentially treated by family, friends, and health care providers), to the time of death (and being concerned about discriminatory treatment by funeral directors).

In a study comparing perceived stigma attached to cancer patients and HIV/AIDS patients, Fife and Wright (2000) identified four dimensions of perceived stigma:

1. **Social rejection.** Feelings of being discriminated against at work and in society, including a perception that others do not respect them, want to avoid them, and feel awkward in their presence.
2. **Financial insecurity.** Inadequate job security and income that result from workplace discrimination.
3. **Internalized shame.** Feelings of being set apart from others who are well, blaming oneself for the illness, and feeling a need to maintain secrecy about the illness.
4. **Social isolation.** Feelings of loneliness, inequality with others, uselessness, and detachment.

They found that while stigma was a central force in the lives of both sets of patients, the HIV/AIDS patients did perceive greater stigma on all four dimensions. The more negative self-perception held by both sets of patients came more from the perceived stigma attached to the disease than from the disease itself. For example, both cancer and HIV/AIDS patients had reduced self-esteem. However, their lowered self-esteem stemmed not from having the disease but from the negative stigma that had been attached to them because of the disease. Wingood and colleagues (2007) found that HIV-infected women who had perceived discrimination were more likely to report high stress level than those who had not, more symptoms of depression, lower self-esteem, greater likelihood of considering suicide, and greater likelihood of not seeking or continuing with medical care. Other research (Turner-Cobb et al., 2002) has confirmed that HIV/AIDS patients who are more satisfied with their relationships and are more securely engaged with others make a better adjustment. These findings well illustrate the dramatic effect of societal response on sense of self.

## SUMMARY

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Illness behavior refers to activity undertaken by a person who feels ill in order to define the illness and seek relief from it. As outlined by Edward Suchman, the illness experience consists of five stages: (1) symptom experience, (2) assumption of the sick role, (3) medical care contact, (4) dependent-patient role, and (5) recovery and rehabilitation. Decisions that are made during these five stages and the behaviors exhibited are culturally and socially determined.

The symptom experience stage occurs in response to physical pain or discomfort and includes cognitive reflection and emotional response. Individuals use many types of cues to determine whether to seek help. If individuals decide to relinquish normal social roles in response to illness, they enter a sick role. This involves giving up normal roles and the responsibility of caring for self but only if the individual wants to get well and takes action to do so. Labeling theorists emphasize that the definition of illness is a subjective phenomenon that is socially constructed within society and within particular physician–patient encounters.

Medicine’s license to legitimate illness has extended more widely than originally envisioned—a process termed “medicalization.” An

increasing number of behaviors (e.g., alcoholism and infertility) have come under medicine’s domain, and physicians and other health care providers are sought for guidance.

The use of professional medical services in times of illness varies among population groups. Response to symptoms is affected greatly by socioeconomic, cultural, and structural variables. Access to quality medical care is still a problem for a number of disadvantaged population groups, especially the uninsured and many racial and ethnic minority groups.

Self-care is an extremely common and pervasive practice that involves a number of behaviors related to promoting health, preventing illness, and restoring health if illness occurs. Millions of people are helped annually through self-help groups.

Those who experience progressively deteriorating chronic illnesses and those who experience traumatic but stable disabilities undergo transformations in self-image and sometimes experience stigmatization. While the former gradually become “immersed” in the disease, the latter often shift back and forth between a disabled and nondisabled identity.

## HEALTH ON THE INTERNET

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One of the leading advocacy groups for disability rights in the United States is the Disability Rights Education and Defense Fund. Connect to their Web site at

<http://www.dredf.org>

What is the mission of this group and what are its major emphases? What are the key disability rights laws? What are the key disability rights issues? What is the focus of its children and family advocacy program?

## DISCUSSION QUESTIONS

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In 1997, the case of Casey Martin received considerable national publicity. Martin was a young golfer who had had some success on the pro-

fessional golf tour. However, he suffered from Klippel-Trenaunay-Weber syndrome, a rare and painful circulatory disorder that affected his

lower right leg (his right leg has only half the girth of his left) and severely limited his ability to walk a golf course.

The Professional Golf Association (PGA) mandates that participants in its tournaments walk the golf course, although they hire others to carry their golf bag. Martin requested an exemption to this rule and asked to be allowed to use a golf cart (the kind most recreational golfers use) to get around the course. The PGA refused on the grounds that walking the course is an integral part of the game.

Martin sued the PGA under the Americans with Disabilities Act (ADA). The ADA, which was passed in 1990, prohibits discrimination on the basis of disability in jobs, housing, and places of public accommodation. The law requires businesses to make reasonable modifications for people with disabilities, unless doing

so would fundamentally alter the nature of the activity in question. Martin contended his being allowed to ride a cart would not constitute such a fundamental change, but the PGA argued that it would.

The case ultimately wound its way to the U.S. Supreme Court. In May 2001, by a 7 to 2 vote, the Court ruled that walking was, at most, peripheral to the game of golf and that Martin's use of a cart would not fundamentally alter the activity. Justices Scalia and Thomas, the dissenting judges, argued that the ruling would doom all sports at all levels because anyone with any disability could insist on having the rules of a game changed to accommodate a disability. ADA advocates insisted that the "fundamental change" stipulation would prevent such interpretation.

In your judgment, did the Supreme Court rule properly or improperly in the Casey Martin



The Casey Martin (a young, professional golfer with a rare circulatory disease in his right leg) case raised significant questions about treatment of individuals with limiting medical conditions. Ultimately, and despite their opposition, the PGA was required by courts to allow him to use a golf cart in professional tournaments.

Case? What implications did the decision have for people with disabilities?

(As an aside, Martin gave up tournament golf in 2006 but qualified for and played in the U.S. Open in 2012. In 2013 while riding his cart as a spectator at a U.S. Junior Amateur tournament (he is currently golf coach at the University of Oregon), the United States Golf Association pulled him off the course and told him that spectators could not ride in a cart. Despite the Supreme Court decision and despite having been given permission by the tournament chair-

man and rules director, the USGA disallowed him use of the cart.

2. In June, 2013, the American Medical Association formally declared obesity to be a disease. The decision was hailed by some as a long overdue action that would improve medicine's ability to treat obesity but was denounced by others who believe it will increase the stigma against obese people. Having read about medicalization issues in this chapter, identify the various ways that this declaration will impact obese people.

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## CHAPTER 8

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# *Physicians and the Profession of Medicine*

### Learning Objectives

- Define the concept “professional dominance.” Identify and explain key ways that the dominance of physicians within medicine has declined.
- Identify the key internal control mechanisms in medicine and assess their effectiveness.
- Describe how the medical malpractice system in the United States works, and identify and describe key weaknesses of the system.
- Identify and discuss key concerns related to the number, composition, and distribution of physicians in the United States.
- Identify and discuss key differences in the practice of medicine based on physician gender.

Being a physician in America in the eighteenth and nineteenth centuries was not highly regarded. Medical “knowledge” was often inaccurate and sometimes dangerous; credentials were easy to acquire or nonexistent; and there was little prestige associated with the field.

Families (typically the wife/mother) were the primary locus of healing services, and information was secured from newspapers, almanacs, and domestic guides that discouraged the use of physicians. Apothecaries dispensed medical preparations, sometimes provided medical advice, and even performed amputations; midwives commonly assisted in the birthing process; and black slaves from Africa were primary healers on southern plantations.

Furthermore, a variety of countercultural health movements flourished. Most sought to disempower the dangerous techniques and drugs of the regular physicians and promote a new attitude toward health, based on the improved conditions already brought about by better nutrition and hygiene. “Every man his own doctor” was one of the slogans of the time, and the “regular”

doctors were attacked as members of the “parasitic, nonproducing classes” (Ehrenreich and English, 1973).

By the early 1900s, however, medical doctors had secured virtually total domination of the health care field. They had largely eliminated many of their competitors (e.g., some of the countercultural movements), had subordinated others (e.g., women in nursing), and had obtained state-endorsed legitimation to control medical education. Few occupations in any country have ever enjoyed the dominance that was captured by professional medicine in the United States in the early part of the twentieth century—a dominance that peaked in the 1950s, 1960s, and 1970s.

### THE PROFESSION OF MEDICINE

#### Characteristics of Professions

There have been many efforts to define the essential traits of **professions**. A classic formulation by William Goode is organized (by us)



## IN THE FIELD

### ESSENTIAL TRAITS OF A PROFESSION

The term “profession” is used to describe occupations that have certain special traits and characteristics. Generally, professions are considered to be vocations, that is, occupations to which an individual is specially drawn and which conform to her or his talents and interests. Three traits of professions are especially noteworthy.

1. **Rigorous standards.** Professions carry special responsibilities so that those entering the profession must undergo a rigorous formal and informal educational and training process and must comply with stringent practice norms.
2. **Significant autonomy.** An important aspect of professions is that they provide significant autonomy to those in the profession and freedom from lay control. The profession itself determines and enforces standards of education, licensure, and quality of practice.
3. **Considerable prestige and identification with the profession.** In part due to the first two characteristics, professions generally are accompanied by high levels of income and prestige. Members tend to identify strongly with the profession and remain in it for their entire career (Goode, 1960).

around the three common denominators of autonomy, rigorous standards, and prestige and identification (see the accompanying box “Essential Traits of a Profession”).

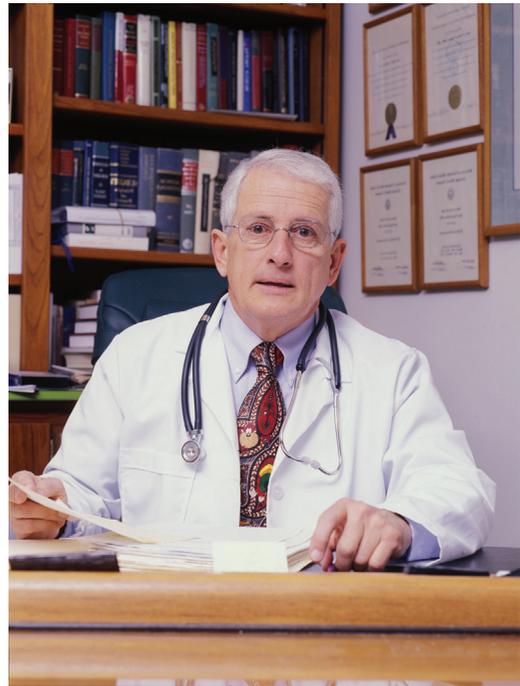
entry into the field and has rigorous educational standards, and it can be trusted to perform its work ethically and to police itself. It is accepted

### The Dominance of the Medical Profession

In 1970, Eliot Freidson published two books, *Professional Dominance* (1970a) and the *Profession of Medicine* (1970b), which dramatically influenced subsequent thinking about the medical profession. He defined a profession as “an occupation which has assumed a dominant position in a division of labor, so that it gains control over the determination of the substance of its own work” (1970a:xvii).

Freidson identified medicine as the epitome of professions and introduced the term **professional dominance** to refer to the extensive control held by the medical profession over the organization, laws, clinical practice, and financing of medical care and to its ability to promote its own autonomy, prestige, and income. It meant, according to Navarro (1988:59), that the medical profession was the “dominant force in medicine.”

How does any field acquire professional dominance? First, dominance is achieved by convincing the public that the profession does valuable work, it requires high standards for



Medical credentials help to convey the amount of training and rigorous standards required to earn a medical degree.

by the public as the most knowledgeable authority on the subject matter.

If this is successful, then the second requirement may be achieved: granting of legal autonomy (including the power over licensure of new members) by governing bodies. This is likely to occur only when the public is convinced that the profession is committed to a service orientation—that is, it is committed to the public good and to the welfare of clients rather than to self-interest. This legal conferral of autonomy bestows upon the profession the right to be self-regulating and to have control over other workers in the same domain—a significant departure from the status of occupations—and frees the profession from external competition, evaluation, and control (Wolinsky, 1993).

### The Decline of Professional Dominance

Has the medical profession remained the dominant force in the health care system? Over the last several years, countless challenges to medicine's dominance have occurred, including the consumer movement, the women's health movement, drives for self-care, the growth of the for-profit industry in health care, increasing government efforts to regulate and bureaucratize medicine, and the managed care revolution (see Chapter 14). Has the collective weight of these and other challenges curtailed the professional dominance of medicine? Has its autonomy been eroded? Is the profession being controlled by forces outside medicine—in much the same manner as occupations experience outside controls? Two major perspectives have suggested that significant change has occurred.

**Deprofessionalization.** Primarily developed by Marie Haug of Case Western Reserve University, the **deprofessionalization** theory contends that, over time, patients have become increasingly well informed about health and illness and increasingly assertive about assuming more control over their own health. Coupled with some loss of confidence in the service orientation of physicians and the medical profession, patients have sought more egalitarian relationships in

medicine—more participation in decision making about their own medical treatment and a less authoritarian demeanor in their physician. This had led to a reduction in the medical profession's monopoly over medical knowledge, a reduction in the dominion of physicians over patients, and a decrease in physician autonomy—all elements of reduced professional dominance (Haug, 1973, 1988; Haug and Lavin, 1983).

**Proletarianization.** John McKinlay and others also see a reduction in professional dominance, but they trace the stimulus to changes that have occurred in the health care system. For many years during the middle and latter parts of the 1900s, professional medicine was largely concerned about losing its autonomy to encroachment by the federal government. The American Medical Association consistently opposed public health–related government programs out of a fear they would allow the government to increase its authority over medicine. Efforts to legislate some form of national health insurance were especially heatedly opposed.

Some analysts believe that the attention of medicine was so strongly focused on minimizing government's involvement in health care that the increasing corporate presence in medicine was largely ignored and its potential for reducing medical dominance very much underestimated.

By the 1980s, however, **corporatization**, an increasing amount of corporate control of medicine, had clearly occurred and was best illustrated by the tremendous influence over the use of and payment for services by managed care companies. According to this perspective, once corporations were allowed into the medical field—in hospital construction, medical equipment supply, laboratories, insurance companies—it was only a matter of time until they assumed greater control of medical practice itself. Their control was enhanced by other developments within medicine, such as specialization and increasingly sophisticated technologies that required more organizational complexity, greater bureaucracy, more money, and more managers to run the entire operation (Light and Levine, 1988).

This large-scale entrance of corporations into medicine created no less than a “clash of two cultures” according to McArthur and Moore (1997). They foresaw a threat to the quality and scope of medical care as the culture of medical professionalism (focusing primarily on the patient’s welfare) was replaced by a commercial ethic culture that seeks profit from the clinical care of the sick. Corporatized medicine contains the paradox that physicians must increasingly rely on corporate organization and finances while simultaneously realizing that these forces intrude on their work and reduce their credibility in society (Light and Levine, 1988).

For some, this corporatization has led to a **proletarianization** of medicine—that physicians, like all other workers in capitalist economies, eventually have their autonomy and self-control stripped and replaced with control by corporate owners and managers. New medical technologies reduce the need for certain traditional skills (including diagnosis), make work more routinized (more like a trade than a profession), and create needs for capital and bureaucracy (with the potential for control by those with capital).

As examples, the government can now influence medical school admissions and curricula

through the provision of grants and scholarships, and the physician–patient relationship is strongly influenced by outside parties such as insurance companies. These changes convert the physician into a worker within the system rather than being in control of it (McKinlay and Stoeckle, 1988).

### The American Medical Association

The **American Medical Association (AMA)** was first established as a national society in 1847 “to promote the science and art of medicine and the betterment of public health.” It sought control over the profession by determining who entered it, how they were trained, and how they practiced medicine, and it hoped to elevate the public’s opinion of the profession by driving out untrained practitioners. Although without power in the beginning, the association gained significant status as a result of the power bestowed upon it by the federal government to oversee standards for medical education and medical licensure. Over the next several decades, the AMA grew into the most powerful and effective health care lobbying group in the United States.

Today, although the AMA retains considerable power and prestige (it is one of the most



The American Medical Association is the largest professional association of physicians in the United States, although the percentage of physicians who join has decreased in the last few decades. The AMA’s main office—shown here—is located in Chicago.

well-organized, best-funded, and most effective lobbying agents in Washington), its influence has declined. While almost 80 percent of licensed physicians were members in 1963, only 32 percent were members in 2000. As of 2010, the association had approximately 216,000 members of which about 22 percent were medical students and 14 percent were residents or fellows. Recent aggressive membership recruiting campaigns have largely failed to boost the membership count.

Some of the membership decline can be attributed to increasing numbers of physicians who have joined societies within their specialty (e.g., the American College of Surgery) or a medical society based on gender (the American Medical Women's Association for female physicians) or race (the National Medical Association for black physicians) rather than the national organization. Many physicians have joined professional societies that expressly seek to offer an alternative to the traditional conservatism of the AMA, and many physicians have not joined or have dropped out due to a belief that large managed care organizations have become the most effective medical lobbying groups today. In a remarkable sign of its change in status, the AMA has recently dropped its adamant and long-standing opposition to physicians forming or joining unions. See the accompanying box "The Unionization of Physicians" about this issue.

**An Alternative Theory: Countervailing Power.** Donald Light and others have offered an alternative perspective in which to consider professional dominance: the theory of **countervailing power**. Light (1991) agrees that professional dominance was won by medicine decades ago, but he does not see it as having become an entrenched part of the health care system. Rather, when any profession gains extraordinary dominance, it stimulates countervailing powers—efforts by other agents to balance its power.

The relationship between a profession and related institutions within a society is in constant state of flux—sometimes an imbalance of power occurs with one side or the other clearly gaining a dominant position. Professional

dominance describes the time when the powers of the profession are great—even though that circumstance initiates efforts that will eventually diminish the profession's dominant position. In medicine, the use of unnecessary procedures, the unexplained large variations in clinical practice, the lack of attention to cost-effectiveness, and the lack of technological self-restraint inevitably led to increased efforts by countervailing agents. For medicine today, these include (1) the government, (2) other providers of health care services such as nurses and chiropractors, (3) consumers in the form of advocacy groups such as the American Association of Retired Persons, (4) large employers ("corporate purchasers") who purchase health care for their employees, and (5) "corporate sellers" of health care services (such as insurance companies). Each of these agents seeks to exercise influence on the evolution of health care and thus exists in a constant interplay with the medical profession (Hafferty and Light, 1995).

Does this mean that physicians today have been converted into corporatized workers? According to Light—no. Relations between physicians and the corporate sector are very complex. Physicians sometimes own hospitals and facilities and laboratories and, thus, are owners as well as workers. Employers, management companies, and insurance companies enter into contractual arrangements with physicians who sometimes have a voice in the companies. However, it does mean that complete physician control over any aspect of medical practice no longer exists (Light, 2000).

In recent years many sociologists, other social scientific scholars, and policy makers have questioned the extent to which the medical profession has maintained sufficient autonomy to carry out its duty to prioritize the needs of patients, or whether professional medicine has so colluded with business philosophy and organization that it is primarily focused on enhancing government protection to create and maintain a financially beneficial position (Light, 2010).

In the current climate of escalating costs, widespread variation in the quality of available care, a



## IN THE FIELD

### THE UNIONIZATION OF PHYSICIANS

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In 1999, the AMA reversed its long-standing and adamant opposition to medical unions. Responding to members' frustration with declining autonomy and stagnant incomes, the Board of Delegates voted to form a national labor union and seek federal approval for the country's private practitioners to join a union and collectively bargain.

Union activity among physicians actually began many years earlier, and at least five physicians' unions had been formed by the mid-1990s. In 1997, the largest union of physicians, the 9,000-member New York-based Committee of Interns and Residents affiliated with the 475,000-member Washington-based Service Employees International Union, the country's largest union of nonphysician health care workers. By the end of the year, approximately 14,000 to 20,000 physicians, about half of whom were medical residents, had joined a union. At that time, the AMA endorsed collective bargaining but steadfastly opposed unions and encouraged members to use their state, county, and specialty medical societies for collective negotiation.

By 1999, however, the tide had turned. The AMA called its newly created labor organization *Physicians for Responsible Negotiations*, and over the next five years, spent more than \$3 million attempting to recruit physicians to join. Because federal antitrust laws ban collective bargaining by the self-employed (which is most physicians), only a minority of physicians (e.g., those who are employed by a hospital or a municipality) were eligible to join. In 1999, about 110,000 physicians were eligible to join a union; about 40,000 of these individuals had already joined. Late in 1999, the National Labor Relations Board (NLRB) ruled that the nation's 90,000 medical residents in teaching hospitals were employees rather than students and had a right to join a union. Later that year, residents at Boston Medical Center became the first group to take advantage of this new right by voting 177 to 1 to join the Committee of Interns and Residents. However, a 2001 U.S.

Supreme Court decision that health care workers cannot join a union if their duties include supervising other employees eliminated unionization as an option for many physicians (and other health care workers).

Partly as a consequence of this decision and partly due to the reluctance of physicians to join organizations—especially organizations that seem political in nature and have traditionally been associated with blue-collar workers—growth in union membership never increased significantly. By mid-2004, the AMA's union had recruited only about 40 members, and the AMA discontinued it.

Meanwhile, union membership among other health care workers has increased in recent years. After a period of time in which many small unions competed feverishly against each other for members, several have now joined forces and entered into agreements with each other. In the last few years, union membership among nonphysician health care workers has increased significantly and especially so among the most highly skilled and highest paid workers including registered nurses, physician assistants, and laboratory technologists. In 2008, about 17 percent of hospital workers (and more than 20 percent of nurses) held union membership, and these workers earned more than those not in a union. The Service Employees International Union (SEIU) now has more than 2 million members with 1.2 million of these being health care workers (registered nurses, licensed practical nurses, physicians, laboratory technicians, nursing home workers, and home care workers).

To date, union membership has captured only relatively small markets of physicians: those who work in state, county, and city facilities and medical residents and interns. However, as more physicians move from independent practice to a position of being a salaried employee (a trend described in Chapter 15), the potential for union membership and collective action increases. This will be a scenario to watch in coming years (Blesch, 2010).

growing uninsured population, and medical errors, observers raise doubts about the physician as business entrepreneur pursuing economic opportunities at the expense of patients' best interests. At stake is whether the influx of money in health care has corrupted a professional mandate to take care of clients . . . If [medical] professionals have used their position mainly or solely to advance their own financial agenda, then the professional logic would be merely another market player protected by professional veneer. (Timmermans and Oh, 2010)

Numerous studies have focused on the relationships among physicians and industry and whether these relationships have any impact on patient care. In 2009, one national survey of primary care physicians and specialists found that 83.8 percent had some type of relationship with the medical industry during the previous year. About two-thirds had received drug samples, more than 70 percent had received food and beverages in their workplaces, almost one in five had received reimbursements for costs associated with attending professional meetings or programs to obtain continuing education credits, and about one in seven had received payments for professional services (consulting, speaking, or enrolling patients in clinical trials) (Campbell et al., 2010).

A second line of research has been to investigate whether financial incentives affect patient outcomes and health care costs. One review of dozens of empirical studies focused on (1) physicians' role in self-referring (referring patients to another medical service in which the physician has a financial interest), (2) insurance reimbursement schemes that create incentives for certain clinical choices over others, and (3) financial relationships between physicians and the pharmaceutical industry. Researchers found that financial conflicts of interests do sometimes have an impact on clinical decisions (Robertson, Rose, and Kesselheim, 2012). In light of studies such as this, recent efforts have been initiated to reduce or even eliminate certain types of physician–industry relationships, but the long-term effect is still unclear.

These issues go to the very heart of the status of professionalism in medicine today. Related issues are discussed in several remaining chapters of this book, and readers are encouraged to keep this issue in mind.

## THE SOCIAL CONTROL OF MEDICINE

Sociologically, the term **social control** refers both to the ability of individuals and groups to regulate themselves (internal control) and to measures taken by outsiders to regulate an individual or group (external control). One expression of the autonomy that professional groups so earnestly desire is the license to be self-regulatory and to be allowed to rely on internal control mechanisms. Perhaps more than any other profession in the United States, physicians have emphasized their autonomy and their disapproval of outside efforts at control.

This section offers a brief review of internal control mechanisms within medicine and an important external mechanism: medical malpractice litigation. Of course, in the last few decades, medicine has had to contend with two other powerful external agents: the federal government and the corporate sector. Medicine's relationship with these agents is touched upon throughout the book but is examined in detail in Chapters 14 and 15.

### Internal Control Mechanisms

Three types of internal controls are described here: peer review, hospital review committees, and the board of medicine in each state.

**Peer Review.** The most basic and potentially most pervasive type of control mechanism is **peer review**—the comments, questions, suggestions, and personal conversations that occur on a daily basis as physicians work with or near each other. Obviously, this does not occur for physicians working independently and with little interaction, but most physicians now work in some type of group setting and encounter other physicians while attending patients at the hospital.

Is the peer review process an effective internal control mechanism? What typically happens when one physician oversees an error or problematic behavior in a colleague? Based on both surveys of physicians and dozens of insider accounts, the answer is clear that physicians often do not report it. An Institute of

Medicine survey found that almost all physicians thought that they *should* report impaired or incompetent physicians or situations with medical errors, but only about half actually did so (Campbell et al., 2007). Physicians express considerable reluctance about making public judgments about colleagues and provoking a hostile response. In situations like these, physicians often consider that medicine is an “art” rather than a “science,” and they feel uncomfortable suggesting that they know better than the colleague being observed. Even if a clear error occurs, many physicians express their view that everyone is fallible (there, but for the grace of God, go I).

If physicians observe a colleague making repeated errors, then a personal chat may occur; patient referrals might be avoided; and a system of “grayzoning” (overseeing the physician’s patient care) may be created, but there is a strong unwritten code of not making an official report. This code explains situations sometimes reported in the media about a physician practicing blatantly incompetent or negligent medicine over a period of years—with the full knowledge of others—but never being reported. Some years ago, a California physician admitted in court that he had needlessly maimed at least 30 surgical patients over a period of seven years and that he had performed many unnecessary procedures simply for financial gain. Despite the fact that others were aware of the situation, he was never once challenged by any other staff member.

**Hospital Review Committees.** A more formal mechanism occurs with a variety of review committees that now exist in all hospitals. Some of these **hospital review committees** are mandated by the federal government or other regulatory groups, and some have been created by hospital initiative. They include credentials committees (especially for new hospital employees), internal quality control committees (usually to guard against overprescribing medication or unnecessary procedures), mortality review committees (for any patient who dies in the hospital), and Peer Review Organizations

(PROs) (established to ensure that Medicare patients receive high-quality care).

Are these effective agents against poor clinical practice? Yes, sometimes; no, at other times. For example, most states require all health care facilities to report to the State Board of Medicine any instance when they question the competence of a physician. But hospitals are reluctant to do this and often do not. Imagine the terrible publicity a hospital would receive if it becomes known that it is questioning the performance of its own physicians. In addition, most states require that the board be advised whenever a physician loses hospital privileges (this automatically becomes public knowledge in some states). Attempting to avoid the negative publicity, the hospital may pressure the offending physician to leave on his or her own accord. No formal action is taken; the physician often moves to another community or state; and a possibly dangerous physician is not stopped. One review of the performance of PROs determined that the committee missed two-thirds of the cases that were judged by an independent panel of physicians to have involved substandard care (Rubin et al., 1992).

A particularly egregious example occurred in 2010 when a Delaware pediatrician was charged with 471 counts of sexually abusing children over a 13-year period. It was learned that a nurse had filed a complaint against him in 1996 for inappropriately touching young girls in his care, but he was cleared. While the city police were investigating several similar complaints in 2005, the hospital was given a subpoena seeking any complaints or disciplinary actions against the physician. Because he was cleared, the hospital was not obligated to report the 1996 complaint, and they did not. Another police investigation in 2008 also led to no charges.

**State Boards of Medicine.** Ultimately, the most severe form of internal control is enacted when a physician is reported to the **State Board of Medicine**. Although states have organized these boards in different fashions, they typically consist of several health care practitioners (sometimes even a consumer or two) with an

investigative staff who can conduct informal or formal hearings on charges against physicians. In most states the charges can be brought by anyone—the courts, hospitals, physicians, and patients. The board has various sanctions it can levy including reprimands, continuing education, fines, probation, suspension, and license revocation. Since 2000, disciplinary actions taken by a state medical board are automatically communicated to the medical board in all other states.

These boards work well in some states, not very well in others, and pursue wrongdoers with widely divergent levels of effort. The total number of actions taken by state medical boards is very small—in 2010, only about 6,000 disciplinary actions (involving a punitive measure such as loss of license, limitations on the license, and probation) against physicians were taken. Generally, physicians who have committed insurance fraud, abused substances, or engaged in prescribing violations receive light sanctions, while physicians convicted of violent crimes such as rape or assault receive very heavy sanctions.

Most agree that the number of physicians sanctioned represents only a small fraction of those guilty of wrongdoing. As an example, about 5 percent of the nation's physicians account for more than half of the medical malpractice suits. Of those physicians who have paid out more than five malpractice claims, only about one in seven has ever been professionally disciplined. Common problems among the boards are too few investigators (producing huge backlogs and long delays), the failure to make actions public (in some states), and an unwillingness to impose and/or maintain penalties. Not surprisingly, therefore, there is a high recidivism rate among physicians who have been disciplined by their state medical board (Grant and Alfred, 2007). As an example, see the accompanying box “The Slow Disciplinary Process.”

**The National Practitioner Data Bank.** The **National Practitioner Data Bank (NPDB)** was created in September 1990 as

a federal repository for specific information on all health care practitioners. Reports of malpractice payments and adverse licensure actions must be reported to the NPDB within 30 days of final action. All health care institutions that grant clinical privileges and medical staff appointments must request information from the data bank. Ironically, the NPDB is not available to the public. An effort in Congress, in 2000, to open it up so that patients could check the records of physicians received little support.

On the other hand, more than 30 states now publish lists of physicians who have been disciplined or have been convicted of medical malpractice, and some have begun to use the Internet to post this information. National repositories of information on physicians are now springing up, though some of these are available only for payment.

**Medical Errors: The Failure of Internal Control Mechanisms.** The dominance that the medical profession has held carries with it the presumption that physicians will conscientiously monitor the practice of medicine. It is the most dependable method of ensuring consistently high quality of care and to avoid harmful medical errors. The failure of peer review, hospital review committees, and state medical boards to carefully protect patients from incompetent and negligent physicians and from medical care systems with inadequate quality controls is an indictment of the extent to which responsibilities have been carried out.

This failure makes likely the possibility that serious and repeated medical errors can occur, and considerable research has shown medical errors to be common and devastating. In 1998, the Institute of Medicine issued a report that caught national attention. The report estimated that medical errors are responsible for the deaths of between 44,000 and 98,000 hospital patients in the United States each year. Two types of errors were discussed. Frontline errors include such problems as a failure to promptly and correctly diagnose an illness,



## IN THE FIELD

### THE SLOW DISCIPLINARY PROCESS

The following is an actual account of a particular case handled before a State Board of Medicine:

**April 26, Year 1:** Board of Medicine informs Dr. S that it will hold a hearing on charges that he knowingly, intentionally, and unlawfully did indiscriminately prescribe amphetamines.

**June 26, Year 1:** Board committee concludes that Dr. S was extremely careless in the excessive prescription of amphetamine drugs and issues a reprimand—warning Dr. S not to do so in the future.

**May 30, Year 2:** Board committee sets up hearing to investigate whether Dr. S has continued to improperly prescribe amphetamines.

**June 11, Year 2:** Committee concludes that Dr. S was extremely careless in excessive prescribing of amphetamine drugs and restricts Dr. S's ability to prescribe controlled drugs.

**April 22, Year 5:** Dr. S's local medical society writes to the state board expressing concern about Dr. S's handling of two cases, indicating that Dr. S is a long-standing problem in the community and needs investigation.

**May 2, Year 6:** The president of the local medical society again writes the board about Dr. S expressing fear for the safety of the general population.

**May 11, Year 6:** The board tells the local medical society that Dr. S is being investigated

and that the investigation will be completed in the near future.

**November 26, Year 7:** The board informs Dr. S that it has scheduled a formal hearing to decide if Dr. S failed to diagnose or improperly treated 18 patients, including an 11-year-old boy who died of asthma.

**January 15, Year 8:** The formal hearing for Dr. S is postponed due to legal maneuvering by his attorneys.

**May 27, Year 8:** Dr. S's attorneys and the state's attorney general's office in consultation with a few board members reach a compromise settlement the day before the formal hearing is scheduled. Dr. S's license is suspended, and he is ordered to take continuing education courses and work under the supervision of another physician.

**November 14, Year 8:** The board returns Dr. S's license and puts him on probation for two years. He is to continue taking education courses, and his practice is monitored by a team of physicians.

**August 31, Year 12:** The board informs Dr. S that it will hold a formal hearing on charges that Dr. S illegally sold and prescribed weight control drugs and failed to maintain proper records for drugs kept in his office. Dr. S retires before hearing is held (Hite and Pardue, 1984).

the administration of substandard or faulty treatment, and the administration of the wrong medication or the wrong dosage of the correct medication (estimates are that 1.5 million medication errors occur in hospitals each year). Such common and obvious problems as the poor handwriting of physicians (so that pharmacists misread important information) and the failure of health workers to wash their hands between patients contribute to these errors. Second-line (less conspicuous) errors are those that are removed from the physician or nurse and include inadequate staffing to offer proper care, shortcomings in practitioner licensing

and credentialing, a faulty medical malpractice system, fragmented delivery systems, and a failure to implement new technologies to help physicians avoid errors. The *Journal of the American Medical Association* describes these medical errors as being real and common.

### External Control: Medical Malpractice

Patients may attempt to exert several kinds of control over the practice of medicine. If they are sufficiently assertive and are working with a communicative physician, they may discuss desired parameters of their interaction,

including amount of communication, the right to ask questions and receive understandable answers, and how truthful they want the physician to be. If this communication does not occur or the physician is not responsive to requests, the patient may “doctor-shop”—search for a more compatible physician. Patients are always free to encourage others to see or to avoid any physician. In cases where wrongdoing is perceived, a complaint may be filed with the State Board of Medicine. In cases where an adverse event occurs as a result of physician error or negligence, the patient may file a medical malpractice legal suit. The following section of the chapter focuses on trends in the process and use of malpractice and examines the medical malpractice system in the United States.

**The Malpractice Concept.** The underlying concept of legal **medical malpractice** is straightforward. Malpractice litigation is intended to compensate patients whose harm by the actions (or inactions) of a physician could have been prevented and to discourage such harms from occurring. The injured patient (the plaintiff) must prove that (1) she or he was injured or damaged; (2) the health care provider (the defendant) was negligent—that is, failed to meet a standard of care expected in the community; and (3) the negligence caused or contributed to the injury or damage. If convicted of the malpractice, the defendant is to pay the plaintiff a sum of money determined by a judge or jury; in reality, almost all providers carry malpractice insurance so the insurance company is the payer in successful suits.

**The Incidence and Severity of Malpractice Litigation.** Measurement of malpractice typically is expressed in terms of the number of claims filed per 100 physicians. This ratio increased from only 1 per 100 physicians in 1960 to a high of 17 per 100 physicians in the mid-1980s, leveled off in the mid-teens per 100 in the 1990s, and has decreased in the last decade. About 1 in 14 physicians is sued for medical malpractice each year (Jena et al., 2011).

Neurosurgeons are the physicians most likely to be sued (19.1 percent annually) followed by thoracic-cardiovascular surgeons (18.9 percent) and general surgeons (15.3 percent). Pediatricians (3.1 percent) and psychiatrists (2.6 percent) were least likely to be sued. By the time they are 65 years of age, 75 percent of physicians practicing in the low-risk specialties will have been sued at least once (19 percent will have made at least one payout), and 99 percent of physicians in the high-risk specialties will have been sued (with 71 percent making at least one payout) (Jena et al., 2011).

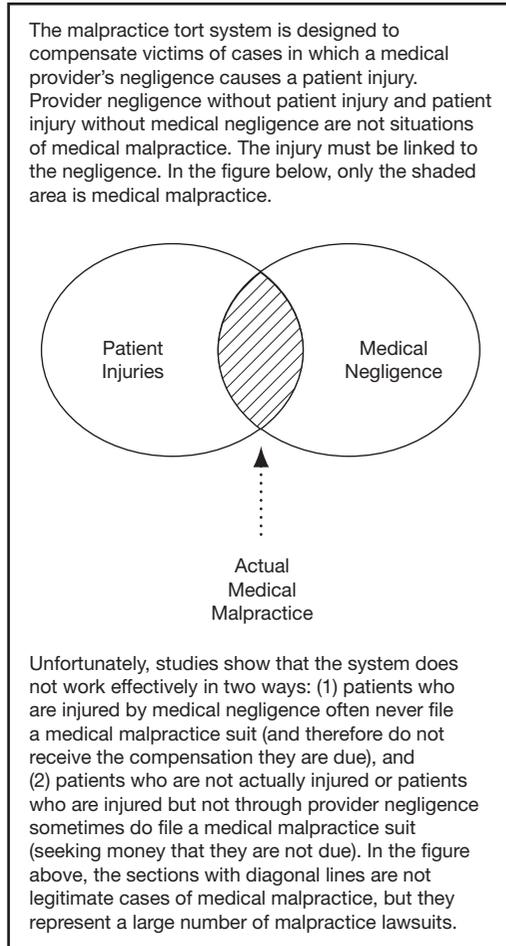
Total malpractice payout rates per year have also fluctuated—from less than \$3 billion in 1992 to \$4.8 billion in 2003 to \$3.7 billion in 2011. These values are influenced especially by the number of successful suits and by caps that have been placed on damages that can be awarded by several states. Six states (New York, Pennsylvania, Illinois, New Jersey, Florida, and California) combined for more than half of the payout dollars (National Practitioner Data Bank Public Use Data File, 2011).

**Malpractice Versus Actual Negligence.** The malpractice system functions best when those who are injured through negligence file and win suits and those who receive no injury or who are injured but not through negligence do not file suits and do not win if they do file. This acknowledges that some injuries occur but are not caused by negligence, and some negligence occurs but does not lead to injury. It is the negligence-caused injury that is the proper object of malpractice. See Figure 8–1.

The *Harvard Medical Practice Study* of malpractice claims and medical records of 31,429 patients hospitalized in New York State in 1984 is the most thorough study done on malpractice. The study identified patients who filed a malpractice claim against physicians and/or hospitals and also examined their medical records to determine the incidence of injuries caused by medical negligence (Localio et al., 1991).

While the patients filed a total of 51 malpractice claims, the audit of medical records revealed 280 actual cases of injury caused by negligence.

**Figure 8–1** The Malpractice System: As Designed and As Actually Occurs



Were the 51 part of the 280? Not for the most part. Only 8 of the 280 filed a malpractice claim; 272 had a legitimate claim but did not file; 43 did not have a legitimate claim but did file. Thus, most actual cases of negligence-caused injury do not get filed, and a large percentage of those that are filed are not justified—the opposite of the way the system is designed to work (Localio et al., 1991). This pattern was affirmed in a similar type of study in Utah and Colorado in the early 1990s (Studdert et al., 2000).

**Consequences of the Malpractice Crisis.** The intended consequences of the medical

malpractice system represent only the tip of the iceberg as to the realized effects. Many patients who have received injury through medical negligence have secured compensatory damages, and many physicians who committed injuries by negligence have been found guilty. But the health care system has been affected in other ways.

1. The AMA and individual physicians acknowledge the common practice of **defensive medicine**—physicians prescribe every imaginable test for patients in order to protect themselves from liability in the case of a negative patient outcome. A recent study using 2008 data found that the medical liability system cost almost \$56 billion that year, or 2.4 percent of total health care spending (Mello et al., 2010).

A second study, based on a survey of Massachusetts physicians, found that 83 percent of the physicians reported practicing defensive medicine and that 18 to 28 percent of tests, procedures, referrals, and consultations and 13 percent of hospitalizations were ordered for defensive reasons. The total added cost was \$1.4 billion (Sethi and Aseltine, 2008).

2. The premiums physicians pay to insurance companies also add to the nation's total health care bill. Ultimately, of course, physicians pass these costs on to patients—further driving up the health care bill. The cost for medical malpractice insurance varies widely among specialties, and among states rates are highest in Florida—especially southern Florida—which is sometimes called the medical malpractice capital of the United States. For example, in 2009, on average, internal medicine physicians could pay between \$5,000 and \$10,000, but in Miami-Dade County in Florida, it was \$58,000. Obstetricians/gynecologists could pay \$50,000 to \$70,000 per year (but more than \$100,000 a year in Florida).
3. The malpractice crisis has embittered many physicians who are more likely to see every patient as a potential lawsuit, thus creating

strain in the relationship; who believe their profession has been subjected to criticism beyond what is justified; and who see a system that often brings them negative public attention when a suit is filed but little public exoneration when the complaint is unproven. Many physicians who have been charged but not convicted of malpractice are among the most bitter for the trauma created by the experience as are many physicians who “settle” the case for economic reasons while perceiving themselves not to be liable (Peeples, Harris, and Metzloff, 2000).

4. The high cost of malpractice premiums has caused many physicians to stop offering services. The amount that physicians pay for malpractice can be looked at from several angles and interpreted in different ways. On average, physicians pay about 3 or 4 percent of their revenue for malpractice insurance (as compared to about 12 percent for staff salaries, about 12 percent for office expenses, and about 2 percent for equipment). However, the premium varies widely by specialty, and obstetricians at about 7 percent pay the most. Prices tend to be higher in some states and areas than others. For example, Georgia, a state with high premiums, has experienced many obstetricians ceasing to deliver babies in order to lower their malpractice premiums. In January 2003, more than two dozen physicians at hospitals in Wheeling, West Virginia, took 30-day leaves of absences—causing cancellation of elective surgeries and transfer of some patients to other hospitals—in order to dramatize their malpractice cost situation.
5. The malpractice crisis has increased acrimony between the medical and legal professions—each of which accuses the other of being the root cause of the crisis. Lawyers argue that malpractice cases are caused by medical errors that physicians commit and that the way to reduce malpractice cases is to reduce malpractice. Physicians argue that malpractice lawyers encourage patients to file suit and seek large rewards because the lawyer gets a percentage of the award.

Doctors believe that the large number of cases is primarily due to attorney behavior. Some physicians have gone so far as to stop offering services to lawyers and spouses of lawyers.

### **Efforts to Reduce the Malpractice Crisis.**

Attempts to redress these problems are being directed along two lines: efforts to improve the physician–patient relationship and efforts to alter the malpractice system.

Research shows that negligence in physician behavior often results from poor physician–patient communication. Patients filing suit often charge that the physician did not provide sufficient information or did not clarify the risks of treatment. Moreover, patients who have rapport with a physician are much less likely to file a malpractice claim than those in a more distant relationship. In a study of sued and nonsued physicians and suing patients, Shapiro and colleagues (1989) found that, prior to a malpractice claim’s being filed, suing patients and their physicians viewed their relationship very differently. Suing patients were much less likely than the physician to believe that theirs was an honest and open relationship.

Given these findings, many physicians have enrolled in workshops and seminars to learn how to better “manage” relationships with patients. To the extent that these classes are directed at making substantive improvements, real progress may occur; to the extent that these classes are cynical efforts at manipulation, the problems are not likely to be effectively redressed.

While Congress has spent an enormous amount of time debating malpractice, it has not been able to agree on any actions. However, several states have initiated efforts to modify the malpractice system. Some have placed a maximum cap on the dollar value of awards for “pain and suffering” and punitive damages (meaning that insurance companies would pay out less when suits are won and would therefore charge physicians lower premiums, resulting in cost savings that could be passed on to patients). The typical cap amount is \$250,000. Physicians and insurance companies strongly endorse this

approach, but lawyers and patients who have been victimized strongly oppose it. Some states have set a cap at a substantially higher level, but it covers medical expenses, lost income, and pain and suffering. This creates the possibility that not even all the victim's costs are covered. However, some courts have found these caps to be unconstitutional, typically with the rationale that the legislature is usurping a judicial prerogative.

Some states have debated a *no-fault insurance system* that would work more quickly and less adversarially than the current system, but with smaller payments (physicians could still be penalized by the state medical board). Some states have adopted a screening process that tries to ensure that only cases with merit can be pursued through the court system. Another option sometimes considered is restricting the amount of money that lawyers can earn from successful malpractice suits. Typically, they receive 30 or 40 percent of the judgment in successful suits.

### THE NUMBER, COMPOSITION, AND DISTRIBUTION OF PHYSICIANS IN THE UNITED STATES

Physicians in the United States have never been scrutinized as closely as they have been in the last decade. Three key areas of examination have been the number of physicians (do we have enough physicians to meet the need?), the composition of physicians (what is the representation of women and racial and ethnic minorities in American medicine?), and the distribution of

physicians (are physicians sufficiently dispersed geographically and by specialty?).

### The Number of Physicians

In 2010, there were 985,375 allopathic physicians in the United States (although just 794,862 were actively practicing medicine). The term “allopathic” is used to refer to the practice of scientific medicine and the basic training taught in medical schools that leads to the M.D. degree. This is an increase of about 171,000 physicians since 2000 (see Table 8–1). Growth in the number of physicians in the last 30 years has been more than four times faster than growth of the U.S. population. In 1960, there were 703 persons per physician compared with 313 persons per physician in 2010.

It should be noted that a sizable percentage of these physicians were trained in other countries. More than one-fourth of all active physicians in the United States are international medical graduates (IMGs). Many graduated from a medical school in another country—India and Pakistan are most common—served their residency in the United States, and then stayed in the United States to practice. Without these physicians, the United States would be in a desperate situation today.

In addition, osteopathic medicine has come to be increasingly accepted and respected in the United States. While it retains some focus on the manipulation of joints and bones, the standard training is very similar to that of allopathic physicians, and they use conventional methods

**TABLE 8–1** Number of Physicians in the United States, 1970, 1980, 1990, 2000, and 2010

Category	1970	1980	1990	2000	2010
Total	334,028	467,679	615,421	813,770	985,375
Male	92.4%	88.4%	83.1%	76.0%	67.6%
Female	7.6%	11.6%	16.9%	24.0%	32.4%
Primary care (of active, office-based physicians)	44.2%	43.0%	43.6%	44.3%	42.6%
Graduate of U.S. medical school	81.0%	77.5%	77.2%	74.5%	72.6%

Source: Data from the American Medical Association, Department of Physician Data Sources, Division of Survey and Data Resources, *Physician Characteristics and Distribution in the United States* (Chicago, IL: AMA, 2012).

of diagnosis and treatment and are able to practice the full scope of medicine. Osteopathic physicians are now often integrated into medical offices with MDs. There are 29 schools of osteopathic medicine in the United States. About one in five of all medical students today, and an anticipated one in four by 2025, is enrolled in one of these schools. Osteopathic physicians need to be counted when considering the full set of medical resources available in the country (Shannon and Shannon, 2009).

Has this phenomenal growth in the number of physicians given the United States an adequate supply? There is not a single easy way to answer this question. In fact, the Council on Graduate Medical Education has reversed its position four times in the last three decades on the adequacy of physician supply. Clearly, however, the Affordable Care Act will necessitate an increase in the nation's physician supply as will the very large cohort of physicians who will be retiring in the next two decades.

### The Composition of Physicians

**By Gender.** The total number of female physicians in the United States increased from around 54,000 in 1980 to about 294,000 in 2010—an increase of more than 500 percent. Females accounted for only 11.6 percent of all physicians in 1980 but 32.4 percent in 2010. Significant increases in medical school applications, matriculants, and graduates in the last two decades are reflected in the age distribution of male and female physicians. Older physicians in the United States are predominantly male; younger physicians are more evenly divided.

**By Race and Ethnicity.** Due to extensive recruiting efforts, the number of underrepresented racial and ethnic minority students in medical school increased in the 1990s but has now leveled off or even declined slightly.

Their proportion remains low among practicing physicians and medical students. While African Americans, Hispanics, Native Americans, Alaskan and Hawaiian natives, and other Pacific Islanders comprise 35 percent of



Females now account for over 30 percent of all physicians but are approximately 50 percent of today's medical graduates.

the U.S. population, they represent only about 7 percent of practicing physicians. The medical education of individuals from these groups is particularly important because they are more likely than white physicians to practice in medically underserved areas and provide medical care for underserved black, Hispanic, and Native American patients, and it is a measure of social justice (Merchant and Omary, 2010).

**By Geography.** Despite the significant growth in overall physician supply, millions of Americans have inadequate access to health care. In 2012, there were more than 64 million people living in (mostly rural and inner-city) areas designated as primary care **health professional shortage areas** [which have shortages of primary medical care (5,900 areas in 2013), dental care (4,600 areas), or mental health care (3,800 areas)] and millions more in **medically underserved areas** (which have a shortage of personal health services).



International diversity of physicians in the United States has increased in recent decades, although the percentage of African American, Hispanic, and Native American doctors continues to lag behind their population percentage.

The number of practicing physicians per 100,000 residents is more than twice as high in urban as in rural areas. One-fourth of the U.S. population—and one-third of the elderly—lives in rural areas, but only 12 percent of active physicians practice there (and many of these are nearing retirement).

**Recruitment and Retention of Rural Physicians.** Why are rural areas so undersupplied? Research has discovered three key factors:

**1. Personal factors.** Preference for practice location appears to be dependent on personal desire for rural or urban living rather than on characteristics of specific settings. Considerations include opportunity for personal time, employment opportunities for

spouse, quality educational opportunities for children, and the availability of social and cultural activities.

**2. Professional considerations.** These include access to professional colleagues for consultation, medical libraries, and continuing education opportunities.

**3. Economic factors.** As more and more medical students incur large debts, economic factors influence preference for practice location. The widespread poverty in most rural areas results in lower salaries; there are many underinsured and uninsured individuals in rural areas; and Medicaid eligibility and reimbursement are often more restricted in rural states.

Have the medical profession, medical schools, and governing bodies noticed the physician shortage in rural areas? Yes. Some medical schools have begun to encourage graduates to practice in rural areas, and some states and localities have devised strategies to boost recruitment of physicians in underserved areas. Research has found that the medical graduates most likely to want to practice in a rural area are those who grew up in such an area. Their desire to return to a familiar place and experience the community life offered in many small towns and rural areas draws them back. Thus, medical school admission policies can have an effect on meeting this need (Hancock et al., 2009).

In addition the National Health Service Corps (NHSC) was created in 1972 to provide financial assistance to medical students in return for a commitment to practice in an assigned, underserved area for a specified number of years. Physicians sponsored by this program have made significant contributions to rural health care, although some studies have discovered that many were unhappy with the area where they were assigned and with the work conditions that exist in isolated areas. These programs notwithstanding, rural and inner-city areas continue to lack adequate medical resources, and significantly greater effort will be needed to correct the inequity.

**By Specialty.** At some point during the medical school years, students decide upon an

area of specialization. While the choice may later change, students apply for residencies in a particular specialty. Specialization choice has been an important issue in the United States, as a large percentage of American physicians have opted for a specialty area (e.g., surgery, cardiology, radiology, ophthalmology, psychiatry, and dermatology) rather than entering a primary care field (family practice, internal medicine, and pediatrics—which are specialties themselves).

This pattern is important for two related reasons. First, primary care physicians are the logical entry point into the health care system. If primary care is unavailable, patients are forced to go to a less appropriate first stop—a specialist. Second, the cost of care from a specialist is higher than the cost for primary care—both in terms of standard fees and in the greater number of more expensive tests conducted by specialists. Analysts estimate that we could save more than \$60 billion a year if our initial entry point into the health care system was always a primary care physician.

Early in the twentieth century, the vast majority of physicians were in primary care, but by 2000 almost 80 percent were specialists. The percentage of medical school graduates going into primary care was low in the late 1980s and early 1990s, increased slightly in the late 1990s, and has now dropped again in the 2000s (from 1997 to 2010 the percentage of American medical school graduates going into primary care dropped by more than half).

What factors have contributed to this drop of interest in primary care? Faculty in many medical schools openly encourage students to pursue specialization and explicitly discourage primary care. Why? The specialties offer more prestige, higher incomes, less frantic work schedules, more research opportunities, and more opportunities to work with high-tech medicine. (See the box, “Disparities in Physician Income.”) As fewer physicians opt for primary care, a vicious cycle is created. There are more patients for fewer doctors, thus creating more time pressure and less time for each patient. The opportunity to engage in a thorough conversation with a



## IN THE FIELD

### DISPARITIES IN PHYSICIAN INCOME

A critical issue within the health care field is a wide variation in physician salaries. The key pattern is that specialist physicians make considerably more than primary care physicians. Some support this pattern because it recognizes the longer period of training required in many of the specialties and the more expertise required with high-technology care. Others oppose this pattern because it is based on a compensation system that rewards procedures (which specialists often provide) much more than time and consultation (which are central in primary care). The divergent salaries are also an incentive for medical school graduates to enter a higher paying specialty to help pay off their debt rather than primary care where the need is much greater. The following table is an example of salary divergences

based on the median of several physician salary surveys in 2012.

Orthopedic surgery	\$514,000
Gastroenterology	\$450,000
Cardiology	\$449,000
Radiology	\$443,000
Dermatology	\$384,000
Anesthesiology	\$380,000
Oncology	\$377,000
Plastic surgery	\$370,000
General surgery	\$350,000
Obstetrics/gynecology	\$297,000
Emergency medicine	\$277,000
Neurology	\$260,000
Internal medicine	\$211,000
Pediatrics	\$203,000
Family medicine	\$195,000

Source: Data from “Modern Healthcare’s 2012 Physician Compensation Survey,” *Modern Healthcare*, July 16, 2012.

patient—something that once attracted physicians to primary care—is reduced. This influences even fewer physicians to choose primary care. Despite the recognized need for primary care physicians, most students have found these to be compelling reasons and have opted for a specialty area. The shortage of primary care physicians is expected to grow significantly in the coming years. It is one of the key problems in the American health care system.

## FEMALE PHYSICIANS

Research on physician gender has increased significantly in the last decade. Researchers have especially focused on differences between female and male physicians and on finding explanations for differences. Significantly less research has systematically compared black versus white physicians.

Research in a variety of settings and with a variety of samples has identified four consistent differences between female and male physicians: (1) Females and males tend to enter different specialties, (2) females and males have different practice patterns, and (3) females and males interact differently with patients. The first two of these differences are examined here; the third is covered in Chapter 12. A fourth significant difference—the presence of gender-based and sexual harassment—is described in the adjoining box, “Gender-Based and Sexual Harassment of Female Physicians.”

### Different Specializations

When female and male fourth-year students are queried about reasons for selecting a particular specialty area for their residency, they offer similar reasons: opportunities for self-fulfillment, positive clinical experiences, and intellectual challenge of the field. The only key differences are that financial advantage is somewhat more important to males and type of patient is somewhat more important to females. Despite the similarity in motivation, male and

female students systematically choose different specializations (Bowman and Allen, 1985).

The clearest difference is that women are much more likely than men to train in primary care, and men are more likely than women to train in surgery. In addition to primary care, female physicians have become especially common in obstetrics and gynecology, psychiatry, and dermatology. Also, female physicians are less likely than their male counterparts to become board certified (i.e., to receive certification from a board overseeing each specialty). Over the last few decades, however, specialty choices for women and men have begun to converge. For example, internal medicine, general and family practice, and pediatrics (though in different order) are now the most common areas of medical specialization for both men and women.

This pattern is even more pronounced among black and Hispanic physicians who are much more likely than their white counterparts to enter a primary care field.

Historically, male physicians have received higher salaries than female physicians. Most research has pointed to women’s greater tendency to work in primary care and women working fewer hours as the causes. However, a study conducted of physicians just leaving residency programs in New York State from 1999 to 2008 found a large gender gap in salaries that was unexplained by specialty choice, work hours, or other practice characteristics. During this time newly trained male physicians made on average more than \$16,000 per year than newly trained female physicians (LoSasso et al., 2011).

### Different Practice Patterns

Male and female physicians differ in several significant ways in their medical practices.

1. Women are much more likely than men to work in salaried positions in institutional settings (e.g., teaching in medical school) and are more likely to practice in urban areas. Women are less likely to have an office-based practice.



## IN THE FIELD

### *GENDER-BASED AND SEXUAL HARASSMENT OF FEMALE PHYSICIANS*

Does gender-based sexual harassment still exist in medicine? Yes. Based on more than 4,500 responses in a Women Physicians' Health Study, Frank, Brogan, and Schiffman (1998) discovered that almost half of the female physicians (47.7 percent) had experienced gender-based (but not sexual) harassment, and 36.9 percent had experienced sexual harassment.

Where did harassment occur? The most common settings were in medical school and during internship, residency, and fellowship. Younger physicians reported higher rates of harassment. The authors acknowledged that this may reflect a heightened sense of awareness among younger women, but they speculated that harassment actually may be

increasing and that female physicians continue to be trained in settings that value power and hierarchy and a legitimization of gender-based and sexual harassment.

In a 2001 to 2002 study of the graduating seniors at 12 U.S. medical schools (Witte, Stratton, and Nora, 2006), more than one-third of respondents reported experiences that they considered to be discriminatory or harassing. Men were more likely than women to identify experiences that they considered to involve educational inequalities. Women were more likely than men to report stereotypical comments; sexual overtures; offensive, embarrassing, or sexually explicit comments; inappropriate touching; and sexist remarks.

2. Women work fewer hours per week than men and earn less money. While differences in both dimensions are narrowing, overall, male physicians still work about 10 to 20 percent more hours per week than female physicians (around 7–10 hours per week difference), and males earn considerably more in salary (not all of which can be explained by the difference in hours worked). Differences in number of hours worked per week are also converging—not because women are working more but because men are working fewer hours. (On average, physicians work 51 hours per week—not out of line with other professions. But, the number of hours worked has declined by almost 10 percent in the last 15 years.) Both female and male physicians are increasingly interested in part-time work.
3. Women are more likely than men to see younger, female, and minority patients. Young black and Hispanic physicians are also much more likely to treat minority patients than are white physicians.

**Reasons for the Different Specializations and Practice Patterns.** Analyses of the differences between female and male physicians have suggested two underlying causes: More nonprofessional demands are placed on women (number of family responsibilities relative to career) and influences of professional socialization (especially attitudes of faculty and colleagues).

The difference in number of hours worked per week by male and female physicians occurs almost entirely among physicians who are parents—the difference in hours worked among nonparents is insignificant. At later ages of the life span, when family responsibilities have largely been completed, women work about the same number of hours as men—and are even more likely to be working full-time at age 60 (Zimmerman, 2000).

This pattern is explained by the different societal expectations regarding emphasis placed on career versus family for males and females. Traditionally, few would even have thought about a male physician altering career commitments (e.g., working fewer hours) upon the birth

of a child, but that expectation is often still communicated to female physicians.

In dual-career families with a female physician, as in other dual-career families, the man's career often is still given priority. The woman has primary responsibility toward family life and child rearing in addition to her career, while the man often focuses on career. Female physicians with a family often continue to do family chores such as house cleaning with little help from the husband or an outside domestic worker. Many female physicians find full dedication to career incompatible with full dedication to family and compromise by temporarily dropping out of the labor force or significantly reducing the number of work hours per week—in essence, sacrificing career advancement for time to raise the children.

An alternative interpretation for this circumstance has been suggested by some analysts. Some research indicates that child care responsibilities account for only a small part of

the work hour differential. Since most female physicians are married to a professional (about 70 percent) and about half are married to a physician, they do not have financial pressures to continue working after the birth of a child.

Upon the arrival of a child, female physicians reduce work hours and workload to the level they most desire. This explanation, however, does not account for the reason physician-mothers desire a smaller workload than others nor does it account for the fact that female, but not male, physicians reduce work hours after a birth. Whichever explanation prevails, the woman's career is more likely to be put on hold after the birth of a child.

Some of the differences between male and female physicians are traceable to socialization processes in medical school and during internship and residency. Some female students are discouraged by male faculty members from entering into certain specialties or in being so dedicated to a career that family interests are



## IN COMPARATIVE FOCUS

### *FEMALE PHYSICIANS IN MEXICO*

Since the 1970s, social scientists have conducted considerable research on the role of women in economic, social, and political development in developing countries. However, little of this research has focused on the small number of well-educated, middle-class professional women in these countries.

Increased access to medical education has provided many women in Mexico with the opportunity to be physicians. Today, females comprise approximately 30 percent of physicians and 50 percent of medical graduates in Mexico—both figures being about the same as in the United States. However, given the strong emphasis in Mexican culture on the family and on women's central role within family life, the question emerges about the practice patterns of female physicians. Harrison (1998) focused on the extent to which female physicians were as able as male physicians to migrate within

Mexico and especially to areas underserved by physicians. Would female physicians be more influenced by professional opportunities and responsibilities or by expectations for responsibilities to family and home life?

Using both personal interviews and analyses of secondary data sources, Harrison found that female physicians tend to live and work in their native or adopted (often the city in which their medical school is located) states in order to be close to family and friends. This is partially influenced by constraints in the health care system such as availability of specialist training and the medical labor market. However, at virtually every point in the life course, family and household demands strongly influence specialist choice, career development, and migration patterns. Career decisions are viewed as being subordinate to those of the husband, thus conforming to traditional Mexican sociocultural values.

subsumed. For example, faculty often encourage women to enter specialties with limited time commitments and in which they perceive less competition; male students receive encouragement to enter more competitive specialties that require longer residencies. This problem is exacerbated by the fact that women are still very much underrepresented in leadership positions in academic medicine and are therefore less available for role models and mentoring (Yedidia and Bickel, 2001). A recent study based on in-depth interviews with 16 female physicians found that all of them could identify instances of gender bias in their educational careers (Wallace, 1998). An interesting cross-cultural example is provided in the box, “Female Physicians in Mexico.”

### PHYSICIAN SATISFACTION AND DISSATISFACTION

Are today’s physicians satisfied with their careers? Some research has found generally positive feelings. Almost three-fourths of physicians in Indianapolis in a survey reported satisfaction with their overall practice, though just 59 percent reported satisfaction with their income (Bates et al., 1998). Colby (1997) concludes that, despite reported discontent by physicians, medicine is still a very appealing career that draws very talented students.

Most studies of physicians have found satisfaction rates with the career at around 80 percent. Physicians who work with children and those who work with the elderly report the highest satisfaction levels. Younger physicians tend to be more satisfied than older physicians. Greater satisfaction is also associated with lower educational debt at graduation.

However, medical bulletins, newsletters, letters to editors in journals, newspapers, and conversations at professional meetings give some indication of increasing job dissatisfaction among physicians. Using such anecdotal sources, Stoeckle (1989) identified the chief complaint among physicians to be the bureaucratic and institutional controls that

limit decision making and participation. These controls result from the many external regulations that restrict professional decision making and can reduce power and control over clinical practice. Regulations by third-party payers and amount of paperwork have been the two most frequently cited sources of dissatisfaction found among family practice physicians. Physicians are clearly very frustrated with all the time necessary to deal with the maze of regulations from third-party payors and by feeling their clinical decisions are based more on what insurance companies will pay for than on the best interest of their patients. Those who are employees of health care facilities often feel they have little control of or participation in practice management. These perceptions have been linked to the likelihood of feeling emotional exhaustion and a sense of burnout and of leaving the field of medicine altogether (Landon et al., 2006). Primary care physicians seem to be especially frustrated with uncompensated activities (such as placing orders, writing prescriptions, electronic messaging, and reviewing clinical notes) that require a significant amount of time (Dyrbye et al., 2012).

Many physicians are disturbed that the mission of medicine has changed from one of service to patients to one of marketing technologies and medical commodities to consumers. The traditional view of provision of care as a civic and/or religious service is viewed as being counter to the newer, secular image of medical work as a “corporate job for the distribution of medical products” (Stoeckle, 1989:85).

Frustration is also expressed about declining incomes relative to purchasing power. As a result of this economic erosion, some physicians perceive a decline in their status. These concerns are accompanied by feelings of vulnerability as a result of increasing quality control mechanisms in hospitals and by insurance companies. Physicians often feel under constant scrutiny over the quality of their work and that they are easy targets of criticism and malpractice charges.

In the past, interaction among colleagues was an important source of job satisfaction among physicians. However, interprofessional

communication has declined as competition among providers has increased. This lack of satisfactory contact with fellow physicians is accompanied by less satisfactory encounters with patients. Traditionally, the relationship between physician and patient was considered to be central to medical practice both because of its importance in the diagnosis and treatment of unique individuals and because it inspired and rewarded physicians. The relationship was extremely important because physicians enabled patients to cope with their diseases, disabilities, and death. Today, tests often take the place of patient communication in diagnosis, and advanced technologies deter physicians from encouraging patients to cope with the realities of disability and death. David Mechanic (2003) interprets data in this area to read that about eight in ten physicians today are satisfied with their medical career, but that they qualify this satisfaction with perceptions of increased time pressures and erosion of autonomy brought on by administrative and regulatory controls.

### Physician Work Intensity

In part inspired by these frustrations and dissatisfactions many physicians have responded by reducing the number of hours per week that they work. The mean number of hours worked per week decreased from about 55 to 51 between 1996 and 2008, and the decrease was largest for younger physicians (under age 45) (Staiger, Auerbach, and Buerhaus, 2010).

### PHYSICIAN IMPAIRMENT: STRESSES AND STRAINS OF THE PHYSICIAN ROLE

Many people consider physicians to “have it made.” They are bright, well-educated, wealthy, prestigious members of the community who typically live in exceptional houses in exceptional neighborhoods with an exceptional number of personal possessions. The image contains a lot of truth—but it misses another side to the career in medicine. Being a physician can be an extremely stressful responsibility, and

physicians frequently suffer from the accumulation of stressors.

Cultural expectations for physicians certainly are high. Physicians are expected not only to be medical experts but also to exercise this expertise without error. Every physician is expected to function at a maximum level of competence all the time. Few patients would be very understanding about a misdiagnosis that occurs because a physician’s mind is temporarily diverted. Yet physicians as people experience the same personal traumas as everyone else and sometimes find it difficult to block personal concerns from professional activity.

Traditionally, physicians have been expected to be assertive decision makers in the office or hospital. They have wanted and been given tremendous authority. They are often treated with considerable deference. While these qualities may not always be beneficial in a health care setting, they can be devastating within family relationships. (Many medical auxiliaries swear that physicians believe that the M.D. degree stands for medical deity.) When physicians do not make the conversion in their right to give orders from office to home, family relationships can suffer. Moreover, many physicians—especially those in primary care specialties and obstetric-gynecology—are rarely off the job. Knowing that they are only a beep or telephone call away from going back to work, they find it difficult to really relax. Getting out of town is the only solution for many physicians.

Stressors like these sometimes take a serious toll and produce an **impaired physician**—one who is unable to practice medicine with reasonable skill and safety due to physical or mental illness, including the loss of a motor skill due to aging, or to excessive use or abuse of drugs including alcohol. One study reported that between 12 and 14 percent of all physicians have had, have now, or will have serious problems with alcohol or other drugs—about the same or a slightly higher percentage as the general population. The incidence of depression is higher among practicing physicians than members of similarly educated groups. Physicians end their own lives with greater frequency and

earlier in life than other members in the general population; doctors have the highest rate of suicide of any profession. Suicide rates for female physicians are especially high relative to other occupational groupings.

Recognizing the problem, in 1972, the AMA created an “impaired physician program” that encouraged physicians to report colleagues in trouble and urged state and local medical societies to initiate treatment programs. These programs are designed to provide treatment for substance

abuse and other problems while protecting confidentiality and reducing the likelihood of punitive sanctions against the impaired physician. All 50 states now have programs in place. Although there is limited systematic or longitudinal evidence about the success of these programs, the general feeling is that they are working well and that they have increased the willingness of physicians to report a colleague demonstrating worrisome signs of substance abuse (Farber et al., 2005; Holtman, 2007).

## SUMMARY

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The medical profession in the United States evolved from a poorly regarded, poorly paid, disorganized occupation in the eighteenth and nineteenth centuries to a position of professional dominance by the early twentieth century. Scientific developments had given the public more confidence in medicine, and the government extended legal autonomy—the right of self-control.

However, most analysts believe that the medical profession’s dominance is waning and being replaced by a variety of agents including corporations and the federal government. The theory of countervailing power posits that any profession’s dominance is only a temporary phenomenon existing only until other forces increase their power.

Social control of medicine refers to forces inside and outside medicine that can regulate medical practice. Internal control mechanisms have a mixed record of effectiveness as regulatory processes; patients can exercise some

external control through such means as malpractice litigation. While injured patients are sometimes compensated through lawsuits, the American system has many problems, including many victims of malpractice who are not compensated and many nonvictims who do file suits.

The number of physicians in the United States is now recognized as being inadequate. Moreover, too few physicians have been entering primary care or choosing to practice in medically underserved areas. Female, Hispanic, and black physicians are more likely than white male physicians to enter primary care, and some systematic differences between female and male physicians in practice patterns remain. These are mostly attributable to family responsibilities being differentially defined and to professional socialization. Recent research has focused on two significant problems among physicians: increasing professional dissatisfaction and high rates of stress-induced physician impairment.

## HEALTH ON THE INTERNET

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Several independent health care ratings companies have created online evaluations for individual physicians, hospitals, and other health care providers. Each is set up a little differently, but may include background information, public liability records, and patient surveys. You can check out the following:

<http://www.healthgrades.com>

<http://www.drscore.com>

<http://www.ratemds.com>

What kind of information can you acquire at each of these sites? Why can’t you get even more detailed information? Many physicians

are unhappy with these sites especially with those that allow any patient to add personal comments. More than a thousand physicians now ask their patients to sign a legal form that promises not to publish any unfavorable information about the physician or care received.

## DISCUSSION CASE

Source: “When the Doctor Is on Drugs,” *Hastings Center Report*, Vol. 21 (September–October), 1991, 29.

You are both personal physician and friend to another physician, Dr. G. He has seemed withdrawn, irritable, and distracted recently. You have heard rumors through the hospital grapevine that not long ago he made a serious error in calculating a medication dosage, but that the error was caught by the pharmacist before the drug was dispensed.

Dr. G has resisted your gentle explorations and expressions of concern during casual encounters, so you are surprised when he blurts out while seeing you for a routine office visit that he is using cocaine daily. You encourage him to enter a detoxification and addiction treatment program, but he declines, saying that he can “handle it” by himself. Unfortunately, his personality changes persist, and even though he assures you that he is now drug-free, you strongly suspect that Dr. G’s drug abuse continues. No further obvious medical errors occur, but stories are circulating in the hospital about his abusive responses to late-night telephone calls. When you directly confront him with your suspicions, he cuts off all further contact with you.

How do you think the presence of Internet sites such as these will affect the practice of medicine? What advantages can you identify? What disadvantages can you identify?

You wish to intervene, but are uncertain how to proceed. You believe you should at least raise your concerns to the quality assurance committee of the hospital medical staff or the impaired physicians’ committee of the state medical society, if not to the state licensing board. Are you justified in doing so on the basis of your current information? Won’t Dr. G just deny everything and accuse you of possessing an economic motive? Should his admission of cocaine use to you during a professional contact be kept confidential? What are the moral and legal implications of breaking confidentiality?

If you do not reveal everything that you know, you have no convincing evidence to present. You realize you have no proof that Dr. G has harmed any patient but wonder if your social duty extends to protecting his patients from the possibility of future damage. What if you’re wrong and he is no longer using drugs? If being irritable is a crime, the hospital medical staff is going to be decimated! If you intervene, there is a real chance that Dr. G will end up the victim of rumors in the community and perhaps have his name listed in the National Practitioner Data Bank. How can you sort through your duties to him as his friend, physician, and colleague, while remembering that you have duties to society as well?

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## CHAPTER 9

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# *Medical Education and the Socialization of Physicians*

### Learning Objectives

- Describe the Flexner Report and identify specific ways that it altered medical education.
- Identify and discuss criticisms of today's medical school curriculum and describe specific ways that the curriculum is changing.
- Describe the value orientations, “tolerance for uncertainty” and “detached concern,” and explain the reasons they are viewed as being important for medical students.
- Identify and describe the primary sources of stress for medical students.
- Identify and describe the impact of medical school on the career practice patterns of students.

**Socialization** is the process by which a person becomes a member of a group or society and acquires values, attitudes, beliefs, behavior patterns, and a sense of social identity. It is a lifelong process; as each new role is added, one integrates new expectations with previous behavior.

Physicians undergo both formal and informal socialization into the medical role. The medical school experience is structured to impart not only knowledge and technique but also certain attitudes and values. Through the process, medical students are consciously and subconsciously converted from laypersons to health care professionals. This chapter traces the development and organization of the formal educational system for physicians and describes the socialization processes that occur.

### THE HISTORY OF MEDICAL EDUCATION

#### Early Medical Education

During the colonial period, the primary mode of medical instruction was the apprenticeship

system, but the quality of these apprenticeships varied enormously. A few preceptors provided meaningful experiences in active practice and close supervision of their students, but many others made little effort to provide any systematic instruction. Though a three-year apprenticeship was considered standard, in reality, a certificate was routinely issued to any student who merely registered with a physician.

By the year 1800, three formal medical schools (the University of Pennsylvania, Harvard, and King's College) had been established. These schools were eventually joined by an increasing number of proprietary (for-profit) medical schools, which became the dominant vehicle of medical education by the mid-nineteenth century. Ability to pay the fees was the only entrance requirement for white males, and few of the applicants had any college preparation. In fact, most students had completed elementary school only, and many were illiterate (Ludmerer, 1985).

Two four-month terms of lectures made up the standard course of instruction. The

curriculum focused on subjects of “practical” value with little attention to scientific subjects. Written examinations were not required in order to graduate, but the diploma “licensed” the young physician to practice medicine anywhere in the country. Some students opted to supplement their medical education by serving as a “house pupil” in a hospital. These pupils, selected by a competitive examination, would reside in a hospital and assume responsibility for managing cases, much as medical students and house officers do today (Ludmerer, 1985).

An alternative to an apprenticeship or American medical school was European study—most often in France. Between 1820 and 1861, nearly 700 Americans studied medicine in Paris. However, few aspiring doctors had the financial means to study abroad (Ludmerer, 1985).

**Medical Education for Women.** While the standards for admission were very lax for white males, women faced much greater obstacles. By 1880, only a handful of medical schools accepted women on a regular basis. Though **Elizabeth Blackwell** (1821–1910) earned an M.D. degree from the Geneva College of Medicine in upstate New York in 1849 (becoming the first woman in this country to do so), most women were forced to attend independent medical schools created expressly for their training. During the second half of the nineteenth century, 14 of these women’s medical colleges were established in the United States.

Some of this gender bias receded during the latter part of the nineteenth century and the first two decades of the twentieth, and numerous medical societies began admitting women. By 1900, women accounted for more than 10 percent of enrollment at almost 20 medical schools, and 12 of the women’s colleges had closed or merged. However, beginning around 1920, a reversal occurred as acceptance of women into professional medicine declined.

**Medical Education for Blacks.** Medical education was formally denied to blacks throughout the United States prior to the Civil War. After emancipation, would-be black

physicians turned to missionary or proprietary medical schools established in the South. The most common motivation for starting these schools was to train black physicians to serve the black population.

The most prestigious black medical college, Howard University, opened in 1869, and it remained the primary source for medical education of blacks for the next century. As late as 1890, however, blacks comprised less than 1 percent of physicians in the United States, and both black and female institutions engaged in constant struggles for survival.

### Early Reform Efforts

Early efforts to reform medical education included raising standards for admission, lengthening the training process, revising curricula, and adding clinical instruction. One obstacle to reform was the dependence of medical professors on student fees—thus mandating that students not be discouraged from applying or persisting once admitted. In addition, American physicians distrusted the laboratory and lacked respect for experimental science, and few medical educators had any interest in research (Ludmerer, 1985).

However, by the mid-1880s, many medical schools themselves had initiated reform. Length of training expanded—eventually to four years—and entrance requirements were strengthened. Curricula were revised to stress scientific subjects, and laboratory experiences were included whenever possible. Although these changes were not instituted uniformly—and hence the quality of medical education varied greatly—momentum for reform was high (Ludmerer, 1985).

**The Flexner Report.** Capitalizing on this desire for improvement, the American Medical Association (AMA) made reform of medical schools a top priority in 1904 by establishing a Council on Medical Education. The council determined premedical education requirements, developed a standard training period, and constructed a licensing test. In addition, the

quality of medical schools was evaluated, and many schools were judged to be inferior. The report was distributed to medical schools but was never published because it was considered politically risky for a medical organization to criticize medical schools publicly.

Instead, the council commissioned the Carnegie Foundation for the Advancement of Teaching to conduct a similar study, to be headed by Abraham Flexner. As discussed in Chapter 2, Flexner's study recognized the diversity of the American medical scene—which included some of the best and some of the worst medical schools in the world. His 1910 report, *Medical Education in the United States and Canada*, strongly attacked the weakest schools, especially the proprietaries. “The result was a classic piece of muckraking journalism that deserves to rank with the other great muckraking treatises of the era. He provided a wealth of details, named names, and devastated the bad schools with humiliating public exposure” (Ludmerer, 1985:179).

The report accomplished its purpose as it aligned medical educators and the public against proprietary schools and in favor of a homogeneous, university-based system of education focused on scientific medicine and formation of a professional identity (Irby, Cooke, and O'Brien, 2010). The AMA worked closely with philanthropic foundations to provide financial assistance to help embed this model on a national level. Small, proprietary schools, which could not mimic the model approach, were not funded by corporate trusts. Numerous colleges were forced to close, including five of the seven black medical schools and all but one of the women's colleges. As a result, the total number of medical graduates, and especially the number of female and black graduates, declined.

## MODERN MEDICAL EDUCATION

### The Foundation of a New Curriculum

By the 1920s, a new type of medical education was in place. Advocated by Flexner and embraced by the AMA and the nation's top

medical schools, a revised **medical school curriculum** (sometimes referred to as the Johns Hopkins model) was implemented. Despite some later innovations, the basic principles of the new curriculum remain in place today. They include the following:

1. A clear separation between the basic sciences (taught in the first two years) and the clinical sciences (taught in the third and fourth years).
2. A heavy reliance on didactic instruction in the form of lectures to large classes (especially in teaching the basic sciences), utilizing the instructor as expert (as opposed to personal investigation).
3. Relatively independent and often uncoordinated courses taught by full-time faculty in many different departments.
4. The clerkship years (often relying on residents as instructors) as an integral part of medical education.

### Academic Health Centers and Medical Schools Today

There are 141 medical schools in the United States and 17 in Canada that are accredited by the Liaison Committee on Medical Education (LCME), the official accrediting agency for programs leading to the doctor of medicine degree.

The LCME is jointly sponsored by the Association of American Medical College (AAMC) (the Committee on the Accreditation of Canadian medical schools in Canada) and the American Medical Association. The nation's 29 osteopathic medical schools are accredited separately by the American Osteopathic Association. The number of medical schools in the United States represents a significant increase in just the last ten years—a response to the perceived need for more physicians—and more will open soon. This is a major development as no new allopathic medical schools opened in the 1980s or 1990s. U.S. medical schools employ more than 128,000 full-time faculty for 75,000 medical students and 110,000 medical residents.



After two decades without the creation of any new allopathic medical schools, six new schools have been accredited in the last few years, and several more are in various stages of establishment.

Each medical school is part of a large configuration of programs and services called an **academic health center (AHC)**. These centers typically consist of one or more hospitals with comprehensive medical specialties, the latest and most advanced medical technology, and sophisticated research laboratories. Often, they are a dominant part of the university in which they are located; and they may be the institution's largest securer of grant money and its most prestigious component. In many cases the health centers have such extensive facilities and generate so much money that they are largely independent of university control.

### Medical Students

The number of applicants to U.S. medical schools declined significantly during the 1980s, rose sharply in the early and mid-1990s (there were about 47,000 applicants in 1996), and then dropped very sharply every year from 1997 until 2002 (when there were about 33,600 applicants). The number has risen steadily since then to 45,260 discrete applicants in 2012 (see Table 9–1). These applicants submitted almost 637,000 applications to medical schools—an average of about 14 each. Several medical schools are currently in the process of increasing their enrollment.

**TABLE 9–1 Applications to U.S. Medical Schools Over a 30+-Year Period**

Academic Year	Number of Applicants	First-Year Enrollment
1979–1980	36,141	17,014
1989–1990	26,915	16,749
1999–2000	38,529	16,856
2009–2010	42,269	18,390
2012–2013	45,260	19,517

Source: Data from Association of American Medical Colleges, 2013a, [www.aamc.org/download/321442/data/2013factstable1.pdf](http://www.aamc.org/download/321442/data/2013factstable1.pdf)

At least three factors contributed to the temporary decrease: (1) many bright students became more attracted to the many opportunities and potentially larger salaries in business, computers, and technology; (2) physician dissatisfaction with managed care dissuaded some potential medical students from applying; and (3) judicial and legislative decisions scaled back affirmative action programs, which led to a decrease in the number of racial and ethnic minority applicants.

The resurgence in applications has been stimulated by (1) increased recognition of the need for more physicians, (2) the increase in the number of medical schools and the expansion of the size of some medical school classes, (3) instability with dot.com positions, and (4) cohorts of students who have grown up with managed care and are not as discouraged from medical careers because of it.

The mean grade point average for matriculants in 2012 was 3.68. Once admitted, almost all students earn their degree (the attrition rate is only about 1 percent).

**Female Medical Students.** In 2012, women accounted for 46.2 percent of applicants and 46.4 percent of matriculants—both slightly lower than the highest percentages, which were in 2003 (see Table 9–2), but the percentage of women admittants by school varies widely. Given that women account for about 56 percent of all baccalaureate graduates, the numbers in medical school are still an underrepresentation.

In recent years, female applicants and matriculants have an almost identical grade point average as their male peers in science and overall. Performance in medical school is indistinguishable by gender (Ramsbottom-Lucier, Johnson, and Elam, 1995).

**Racial and Ethnic Minority Medical Students.** In 2012, 41.8 percent of first-year medical students were racial and ethnic minority students. Asian American (23.3 percent), Hispanic (8.9 percent) and African American students (7.0 percent) account for the vast majority of this category (see Table 9–3). The number of applications from members of underrepresented minority groups increased during the 1990s. Acceptance of minority applicants continues to be approximately the same as for other applicants. The landmark civil rights court decisions and the legislation of the 1950s and 1960s served to open the doors of all medical schools to minority candidates. In 1969, the AAMC established an Office of Minority Affairs in an attempt to encourage more minority students to seek medical education. The AAMC has established the goal of proportional representation in medicine for all groups and has paid special attention to minorities that have been underrepresented. However, the scaling back of affirmative action programs in the late 1990s and early 2000s has led to a significant decrease in minority applicants. For example, 1,455 black students entered medical school in 1996, while just 1,136 did so in 2009. Among the negative consequences of

**TABLE 9–2 Women in U.S. Medical Schools Over a 30+-Year Period**

Academic Year	Number (%) of Women Applicants	Number (%) of Entering Women	Number (%) of Graduates
1979–1980	10,222 (28.3)	4,748 (27.9)	3,497 (23.1)
1989–1990	10,546 (39.2)	6,404 (38.2)	5,197 (33.9)
1999–2000	17,433 (45.2)	7,725 (45.8)	6,712 (42.4)
2009–2010	20,252 (49.9)	8,817 (47.9)	8,035 (48.8)
2012–2013	20,922 (46.2)	9,064 (46.4)	8,291 (47.8)

Source: Data from Association of American Medical Colleges, 2013b, [www.aamc.org/download/321532/data/2013factstable27-2.pdf](http://www.aamc.org/download/321532/data/2013factstable27-2.pdf).

**TABLE 9–3 Race and Ethnic Background of Medical School Enrollees, 2012**

Background	Applicants	First-Year Enrollment Percent (90)
White	24,342 (53.8)	11,012 (56.4)
African American	3,304 (7.8)	1,182 (6.1)
Hispanic or Latino	3,701 (8.2)	1,731 (8.9)
Asian	9,427 (20.8)	4,068 (20.8)
Native American/Alaskan Native	108 (0.2)	52 (0.3)
Hawaiian/Pacific Islander	87 (0.2)	25 (0.1)
Unknown	1,221 (2.7)	571 (2.9)
Multiple Race	1,323 (2.9)	610 (3.1)
Non-U.S.	1,713 (3.8)	266 (1.4)
<b>Total</b>	<b>45,266</b>	<b>19,517</b>

Source: Data from Association of American Medical Colleges, 2013c, [www.aamc.org/download/321480/data/2012factstable12.pdf](http://www.aamc.org/download/321480/data/2012factstable12.pdf).

this decrease is that white medical students have less opportunity to interact with and get to know racial and ethnic minority students. In turn, this has been found to decrease their confidence in being able to work with diverse populations (Saha et al., 2008).

### The Medical Education Curriculum

**Years One and Two.** Most medical schools offer a similar curriculum. The first two years are devoted to the basic sciences (e.g.,

anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology). Largely taught through the traditional lecture format, students are often overwhelmed by the amount of information presented.

The units are highly compact and very intense; students quickly learn that they cannot possibly learn everything, so they quickly search for memorization aides. Classes are often quite large, and medical faculty tend to be impersonal (a significant change and major disappointment for many students). Most schools require



While large lecture classes continue to be prevalent in the first two years of medical schools, an increasing number of schools are adopting small groups as a preferred mode of teaching.

Part I of the National Board of Medical Examiners (NBME) examination to be taken and passed after the second year.

**Years Three and Four.** During the third and fourth years—the clinical years—students learn to use their basic medical science to solve actual clinical problems by working with patients (almost always in hospitals). During these two years, students rotate through several (typically about nine) clerkships to learn specialized applications of medical knowledge. They spend an average of about 6 weeks in family practice, 12 weeks in internal medicine, 8 weeks in general surgery, 8 weeks in pediatrics, 7 weeks in obstetrics and gynecology, and 7 weeks in psychiatry. Students often make rounds during these years—accompanied by impersonal faculty and intensive oral exams. Most schools require passage of Part II of the NBME exam after the fourth year.

**The Internship and Residency.** After the fourth year, most students enter a medical residency (except for those who intend to do research or work outside medicine). A computerized matching process is used to pair residents looking for a teaching hospital with particular traits (e.g., specialization or location) and for hospitals attempting to secure the best possible residents. The number of years required in residency depends upon the specialty interests of the resident—three is common, but several specialties require more. The resident (the first year of the residency is still sometimes referred to as the internship) is legally able to practice medicine under the supervision of a licensed physician.

Significant role identity change from student to physician occurs during these years. The resident has much more authority than the fourth-year student, and that often comes across in relationships with patients and ancillary staff. This is a learning period for residents, and they often search for—and are most excited to work with—intriguing cases. On the other hand, medical residents are a primary source of cheap labor for hospitals, and they are expected

to handle many routine responsibilities. The hours assigned are typically very long; exhaustion is not uncommon (due to medical school debts, many residents even moonlight—taking on additional paid medical responsibilities in the few off-hours they have); and it is often a frustrating and disillusioning time.

### The Crisis in Academic Health Centers

The nation's AHCs are in an extremely perilous state in this second decade of the 2000s, as many have operated in recent years with sizable debt and are now struggling to remain solvent (Lofgren et al., 2006). In a highly praised book, *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care*, Kenneth Ludmerer (1999) describes a wide range of factors that have recently put enormous pressure on the resources of the centers. These forces include the managed care revolution that requires health providers to look for lowest cost options in delivering care (such as doing more services on an outpatient basis) and collaborate in ways to be more efficient; the increasing costs in providing medical education and conducting medical research; decreased external funding for research; the substantial provision of care for those unable to pay; and sharp reductions in government reimbursement for care provided. AHCs have been hit particularly hard by these forces because of the ways they have traditionally been configured: Prices are typically higher in AHCs than in nonacademic hospitals; staffs are dominated by specialists rather than generalists; emphasis is on expensive high-tech medicine; large research expenses are incurred, and, in most schools, departments have not historically worked closely together—all patterns that are incompatible with recent changes in health care. The Affordable Care Act seeks to lower the cost of medical care in part by expanding primary care services and reducing overuse of expensive modalities. AHCs will need to adapt to this effort in order to be vital parts of the future of health care (Karpf, Lofgren, and Perman, 2009).

Ludmerer contends that part of the problem is the inability and unwillingness of the centers to reconfigure in ways that would enable them to continue providing high-quality medical education and high-quality medical care. Instead, financial cutbacks have tended to come in areas that directly compromise the quality of programs and services. For example, new clinical faculty are hired but are often not asked to be part of the teaching program. Faculty who do teach spend less time mentoring students. Clinicians are asked to speed up each patient encounter so that more patients can be seen in the day. In this environment, Ludmerer fears that students are increasingly likely to focus on the business and bureaucratic side of medicine while neglecting medicine's core: a Samaritan concern for the care, suffering, and well-being of the sick (Fox, 1999). Hafferty (1999) concurs and encourages the centers to restore the primacy of the teaching of values and professionalism to the core of the curriculum and focus less on the transmission of esoteric knowledge and core clinical skills.

Not surprisingly, a negative culture within an academic medical center leaves faculty feeling dissatisfied and unfulfilled. One study of more than 4,500 medical school faculty found that most valued their work but that one in seven had considered leaving their institution during the prior year and an additional one in five had considered leaving academic medicine altogether. A chief reason was the negative culture within the center: unrelatedness, a lack of engagement, and low institutional support were among the chief complaints (Pololi et al., 2012).

### Specific Criticisms of the Medical Education Curriculum

There is considerable agreement that the traditional medical school curriculum falls short of the ideal. Critics, often from inside AHCs, have identified at least four important criticisms (Braunwald, 2006; Cooke et al., 2006).

First, too little priority is given to teaching by medical faculty who are hired and promoted based on their record in research, grantsmanship, and clinical practice. As the entire incentive

structure focuses on nonteaching activities, dedication to working with medical students is often lacking (Regan-Smith, 1998). As an illustration, despite the fact that the number of faculty has increased more rapidly in recent years than the number of students, faculty are not spending any additional time in the classroom. In reflecting on the dominance of nonteaching activities in academic centers, David Rogers laments the passing of earlier ways:

Gone are the leisurely laboratory sessions where students and faculty became acquainted one with another in a problem-solving mode. Gone are the informal after-hours get-togethers with faculty who knew students and vice versa, which I remember with such fondness from my own student days. Gone are the genuine, go-at-your-own-pace problem-solving sessions in which students learned to think deductively and gained experience in logical decision making. (1987:38)

Second, an extensive amount of departmental and research specialization prevents integration of the curriculum. Many academic physicians focus on only one aspect of medical education: clinical practice, teaching, research, or administration and have little interaction with those who have other priorities. Departments (referred to as "fiefdoms" by many faculty themselves) are locked into continuing competition for prestige and for both internal and external funding (e.g., basic science and clinical departments often struggle for power) (Ludmerer, 1985).

The faculty members from any one discipline are usually unaware of and not interested in the material presented in other courses. As a consequence, students are presented with uncoordinated information from the various biological sciences. The content of any one course is unrelated to the content of other courses and there may be gaps or duplications. Information from the courses taken collectively is unrelated in any explicit manner to clinical application. (Bussigel, Barzansky, and Grenholm, 1988:5)

Third, most medical curricula continue to focus on the presentation of facts and on the ability of students to memorize facts. Especially in the first two years, lecture pedagogy and fact-based exams dominate. Much less time is

devoted to the enhancement of students' analytic skills. Given the speed with which new facts become available and the nature of medicine as a question-answering, problem-solving field, the emphasis on passive rather than active learning is difficult to understand.

Moreover, crucial aspects of the actual practice of medicine are sometimes given little or no attention. Understanding the importance of sociocultural influences on patient behavior, the development of interpersonal skills (such as verbal and nonverbal communication and the development of rapport with patients), and reflection on ethical questions are rarely highlighted.

Finally, today's medical school curriculum is out of step with current realities, such as changes in disease patterns and changes in the financing of health care. Despite the fact that chronic disease accounts for approximately 75 percent of deaths in the United States, medical education continues to focus heavily on acute health problems and late-intervention therapies and largely ignores the importance of lifestyle education, preventive health care, and the influence of social factors on disease and illness.

### Curricular Reform

Over the course of the last three decades, at least four significant efforts at curriculum change have occurred.

**Problem-based learning (PBL)**, developed at McMaster and Michigan State Universities in the 1970s and incorporated elsewhere, attempts to overcome the fact-based approach in the traditional curriculum by emphasizing student problem solving. In contrast to traditional lecture-based learning, students studying under PBL are more likely to have actual patient contact from the beginning of medical school and to work routinely with patient case studies and simulated patients. Emphasis is placed on analytical reasoning and methods for acquiring and applying information. The instructor is not the "answer expert," but a facilitator assisting students in doing the problem solving. Students often work in small-group tutorials.

Is this an effective teaching strategy? Research indicates that it is. Several studies have found that students using PBL outperform those using lecture-based learning on tasks such as retention of factual knowledge, ability to take a history and perform a physical exam, deriving a diagnosis, and organizing and expressing information (Richards et al., 1996). Medical school faculty who have worked with PBL rate it very highly in the areas of clinical preparation, medical reasoning, and student interest, but less highly in teaching factual knowledge and efficiency of learning. Faculty most involved with PBL rate it most highly (Vernon and Hosokawa, 1996).

*Teaching professional skills and perspectives* has long been recommended but only recently seriously developed by a sizable number of medical schools. Though often taken only on an elective basis, courses in physician–patient communication, physical examination, health promotion and disease prevention, public health, working with diverse populations, medical ethics, and medical sociology are now widely available in medical schools and increasingly recognized as being essential in the comprehensive training of physicians. It is likely that these courses will be further integrated into medical school curricula in the future (Makoul, Curry, and Novack, 1998).

*Community-based medical education* involves the shifting of clinical training from hospital wards to outpatient settings such as physicians' offices and community health centers. While this shift may reduce the number of opportunities that medical students have to do certain procedures (e.g., insertion of a nasogastric tube), it creates many more opportunities to interact with patients in the type of setting in which most physician–patient interaction actually occurs (Hensel et al., 1996).

**Evidence-based medicine (EBM)** has become a significant curricular change. Acknowledging that wide disparities in diagnosis and standard treatment exist among and even within communities, EBM is an effort to have physicians' selection of medical therapies rely less on intuition and anecdotal evidence and

more on medical therapies that have been tested and determined to be effective in scientific research. It has evolved now to a point at which physicians are asked to integrate evidentiary knowledge with clinical experience and patient preferences. EBM allows individuals to define what “evidence” means in different ways; one study found that some pediatric residents interpreted it to mean consulting the relevant literature, while others more critically analyzed the available research. Using EBM did not remove all physician uncertainty about the proper course of action but did strengthen use of available outcomes-based research (Timmermans and Angell, 2001; Timmermans and Mauck, 2005). Research has found that students learn well when being taught through an EBM approach (West and McDonald, 2008).

Does all of this portray significant reform in medical education? Yes, according to some; no, according to others. In 1988, Sam Bloom, himself a medical school faculty member, expressed criticism of modifications in medical curricula that left the basic teaching/learning experience unchanged. Referring to such modifications as “reform without change,” Bloom said that the experience of teachers and students had changed so little “that current medical students are startled by the mirrorlike familiarity of 30 year old accounts of medical student life” (Bloom, 1988:295). In the late 1990s, Bloom’s analysis of the meaningfulness of reform efforts had not changed. Perhaps, however, the continued development of PBL, the teaching of professional skills and perspectives, community-based programs, and evidence-based learning offer hope of “reform with change.”

### The Future of Reform

Are medical schools committed to curricular change? Perhaps. It is clear that the LCME is encouraging schools to develop more integrated curricula, promote active and PBL approaches, increase students’ exposure to primary care and community settings, further develop EBM, place increased emphasis on chronic diseases, expand focus on women’s health, add emphasis

on relief of pain, introduce learning of complementary and alternative healing approaches, and health policy. In schools where these innovations have been introduced, medical students have responded favorably. While many such programs will need to be fine-tuned, students are strong proponents of meaningful change (Khan, Long, and Brienza, 2012; Ross and Fineberg, 1998).

Recently, there have been many calls to significantly reform medical education by dramatically increasing students’ exposure to the social sciences. Some have observed that medical education has focused on the technical and clinical skills of practicing medicine to the exclusion of helping physicians-to-be to understand the complex medical care system in which they will be working (Sales and Schlaff, 2010).

In 2011, the Association of American Medical Colleges issued a report that emphasized the importance of the behavioral and social sciences in medical education. The next year, it was announced that the Medical College Admissions Test (MCAT), a prerequisite to admission to almost all U.S. medical schools, would undergo significant revision in 2015 (Gabbe and Franks, 2012). The pre-2015 test consisted of four sections: physical sciences, biologic sciences, verbal reasoning, and a written essay, while the 2015 changes include the addition of a new section entitled Psychological, Social, and Biological Foundations of Behavior and the substitution of a section on critical analysis for the written essay.

These revisions reflect the recognition that behavioral and social factors not only play major roles in health and illness, but also interact with biological factors to influence health outcomes. Fundamental knowledge about behavioral and social sciences is critical to the practice of medicine (Kaplan, Satterfield, and Kington, 2012).

This section of the test will cover foundational knowledge in the behavioral and social sciences and attend to five content areas:

1. Ways in which people perceive and react to the world

2. Factors that influence behavior and behavior change
3. Factors that influence how we think about ourselves and others
4. Ways in which culture and social differences influence well-being
5. Ways in which social stratification affects access to resources

Assuming that medical schools make effective use of this new section, its inclusion on the MCAT will necessarily increase the exposure of premedical students to the behavioral and social sciences and hopefully will pave the way for additional attention to these areas in medical school.

(The accompanying box, “Medical Education in China,” discusses a system of medical educa-

tion found to be more appropriate for a developing country).

### THE MEDICAL SCHOOL EXPERIENCE: ATTITUDE AND VALUE ACQUISITION

Sociologists are keenly aware of the powerful socializing influence of the medical school experience. The length of time in medical training; the intensity of the experience; and formal and informal interaction with faculty, fellow students, other health care workers, and patients help to shape important attitudes and values of the physician-to-be. This section of the chapter summarizes research on two important attitude and value changes experienced by many medical students: a “tolerance for uncertainty” and “detached concern.”



#### IN COMPARATIVE FOCUS

##### MEDICAL EDUCATION IN CHINA

As the most populous country in the world and one whose population is largely rural, China faces a very difficult challenge in having a sufficient number of health care providers. In a model that is partly based on Western-style medical education and partly on its own culture and social circumstances, China provides three levels of education for physicians:

*Assistant Doctors* are trained for two years and several months to be able to provide basic primary care in mostly rural villages.

*Medical Doctors* are trained either at Level 1 (a three-year program that includes condensed basic sciences and clinical subjects in the first two years and hospital practice in the third year and prepares doctors to work in rural communities) or at Level 2 (a five-year curriculum that includes all the basic sciences in the first three years, general medicine and surgery in the fourth year, and hospital practice in the fifth year and prepares doctors to work in urban areas).

*Specialists* undergo seven or eight years of training and essentially receive the same training as Level 2 doctors plus additional training

in specialty areas. They typically work in urban areas and provide specialty care and complex surgeries.

Medical education in China includes both a Western style, scientific-based curriculum (including anatomy and physiology), and education in traditional Chinese healing theory and practice (including knowledge of acupuncture). Some schools focus more on Western medicine while others focus more on traditional medicine.

The Chinese system for medical education acknowledges that China does not have a sufficient number of fully trained physicians to meet the needs of the total population. By requiring fewer years of preparation for those who will solely provide basic primary care, more individuals can be medically trained and the needs of both the urban and rural populations can be addressed. In addition, health care providers can focus their education on more or less traditional healing practices, thus making both approaches available to patients (Lassey, Lassey, and Jinks, 1997).

### Tolerance for Uncertainty

In studies at Cornell University, researchers identified a clear and explicit effort to train medical students to be tolerant of the many kinds of uncertainties they would face as physicians. Renee Fox (1957) identified three kinds of uncertainty that confronted the students as they progressed through medical school. Early in the first year, a type of uncertainty was created when students became aware that they could not possibly master all the concepts and facts covered in their classes and textbooks. For students accustomed to mastery of course materials, the enormity of the field of medicine can be a very threatening and disheartening realization.

In college, I didn't always do all the work, but I was good at managing my time, and I was happy with the work I was doing and satisfied with what I was achieving. But somehow here, it's Pass/Fail . . . it should be easy, [but] the pressure is so much greater . . . I think part of it is the sense that what you learn now may make the difference in someone's life. The material begins to impress you over

and over again; this is serious. You need to know it to treat people. (Good and Good, 1989:304)

Second, and more gradually, students became aware that the knowledge base of medicine is incomplete. There is much about the human being—genetically, physiologically, emotionally, and socioculturally—that is yet to be fully understood, and important gaps in information exist in understanding disease and illness and their treatment. Students come to realize, even if they could somehow know all that is known about medicine, there is much they would not know.

The third type of uncertainty was created when students attempted to distinguish between the first two types. When they would run into a question in the process of making a patient diagnosis, students would need to determine whether it was a limitation in their own knowledge or something not yet comprehended in medicine. As clinical work increased, they were often concerned that their own lack of knowledge might jeopardize a patient's health or recovery.



One of the key medical orientations to which medical students are socialized is a “tolerance for uncertainty”—a recognition that there is not yet an answer for every question that occurs in the medical setting.

Aware of this rite of passage, medical faculties and upper-level students socialized newer students to accept that some uncertainty is inevitable in medicine, that it has some fortunate consequences (e.g., stimulating new medical knowledge), and that it is best dealt with by openly acknowledging its existence (Fox, 1989).

However, students also realized the dysfunctions of being too candid about their own uncertainties. Desiring to come across as knowledgeable and competent future physicians, and not wishing to jeopardize the confidence of the patient (or their instructors) in them, they often presented themselves as more certain about a matter than they really were. Light (1979) suggests that the real socialization that occurs is “training for control.” This is accomplished not only through mastery of course materials and clinical experience but also through “psyching out instructors” (e.g., finding out what instructors want and giving it to them and using impression management techniques) and becoming more authoritarian with patients. Katz (1984) has referred to this process not as tolerating but “disregarding” uncertainty.

Do these efforts to control uncertainty carry over into clinical practice? It has been suggested that some of the excessive diagnostic testing that is a concern today is due to physicians seeking diagnostic certainty and pursuing every test that might offer it (Allison, Kiefe, and Cook, 1998).

When diagnostic certainty does not exist, however, physicians often become and portray themselves to patients as being supremely confident about their conclusions (“micro-certainty”)—even when there is considerable dissensus with other health care professionals about the diagnosis (“macro-uncertainty”). This pattern has been identified in treatment choices made by physicians working with breast cancer patients and in the rapid decision making of nurses in an intensive care unit (Baumann, Deber, and Thompson, 1991).

### Detached Concern

Concern for one’s patients is certainly an accepted ideal in medical education, but

students are encouraged to develop **detached concern**—concern about the patient without excessive emotional involvement or overidentification. It is a “supple balance” of “objectivity and empathy” and “equanimity and compassion” that are combined to enable the “delivery of competent, sagacious, and humane patient care” (Fox, 1989:85). The danger of becoming too emotionally involved with a patient is that diagnostic proficiency or treatment recommendations might be compromised by personal involvement. The death of a patient is often difficult for physicians, but if there is extensive emotional involvement, the death may so affect the physician that the care of other patients would be compromised—not a desirable circumstance. These are the reasons many physicians prefer not to treat family members.

Students learn specific techniques to facilitate this detachment. They learn to “intellectualize” and “technicalize” the cadavers they work with in anatomy laboratory and engage in “gallows humor” as a means of venting personal emotions. In their clinical years, they repeatedly perform certain tests (e.g., urinalyses) so that they become accustomed to them and feel less awkward about doing them. As actual patient care begins, many students feel uncomfortable about certain questions that need to be asked (e.g., sexual history) and certain procedures that must be done (e.g., a rectal examination). Students are often still thinking of the patient as an individual person—making these tasks more difficult. Often, they consciously seek more detachment (Fox, 1989).

At some point during the third year, many students become aware that their efforts to detach have been too successful. They have made a transition by depersonalizing the patient and by focusing on diseases and procedures and tasks that are becoming second nature—rather than focusing on the person. Some refer to this as a type of “emotional numbness” (Fox, 1989). Rather than having learned to walk the fine line between concern and detachment, students often master detachment at the expense of genuine concern, become increasingly doctor centered and less patient centered (Haidet et al., 2002),

and sometimes develop disinterested or even hostile attitudes toward patients.

**Curing Rather Than Caring.** Critics charge that these attitudes are more than an unfortunate byproduct of learning to maintain objectivity. Rather, it is posited that medical schools are so devoted to teaching students how to “cure” patients that they offer little guidance or training or encouragement in ways to “care” for patients. Conrad (1988) analyzed four separate book-length accounts (“insider reports”) of the medical school years written by medical students. The accounts portrayed an educational experience clearly oriented toward curing—understanding disease, technical procedures, and high-tech medicine—with little attempt to focus on caring for patients. An “ideology of caring” was sometimes voiced but not often demonstrated.

Perhaps the most consistent theme that recurred in these accounts was the scarcity of humane and caring encounters between doctors and patients . . . Doctors’ clinical perspectives focused almost entirely on the disease rather than on the illness. Virtually all teaching emphasized the technical aspects of doctoring: diagnosis, treatment, and intervention. Too often this approach caused patients to become the disease: “the lymphoma in Room 304.” A fascination with technological intervention pervades medicine, from neonatal intensive care to neurosurgery to cardiac catheterization. These are the frontiers of medicine . . . and are seductive to medical students. (Conrad, 1988:328)

The physician–patient interaction that is observed often devalues the importance of caring behaviors. During rounds in a hospital, physicians often talk to residents or medical students about a patient as if the patient is not even present. When talking to the patient, many doctors do not make eye contact, are not attentive, and are very abrupt—these are the behaviors students observe.

Renee Anspach (1988) also investigated the way that physicians talk to each other about patients. She conducted a 16-month field study of life and death decision making in

two newborn intensive care units and spent an additional 3 months in a hospital Obstetric-Gynecology department. She closely studied “case presentations”—formal and informal case histories presented at formal conferences, during daily rounds, in consultations with specialists, and at various points on the case record—made by interns, residents, and fellows. She observed that the terminology used often “de-personalized” the patient (e.g., using a very impersonal vocabulary); that the passive voice was used to omit reference to the physician or nurse or other health care workers who attended the patient or that a technology was identified as the agent (e.g., “the arteriogram showed”); and that skepticism was often expressed about patients’ self-reports.

Medical students have also developed special terms that they use among themselves to identify patients they perceive to be undesirable: “gomers” (get out of my emergency room—often used to describe patients with poor hygiene, incontinence, habitual malingering, and having a tendency to pull out intravenous lines), “crocks,” “dirtballs,” and “brain stem preparations” (Liederman and Grisso, 1985). Terry Mizrahi’s fascinating 1986 book *Getting Rid of Patients* describes a whole process of enculturation for interns and residents that often results in a GROPP (getting rid of patients) perspective.

It is little wonder that when medical students begin their own interaction with patients, they are often ill-equipped to offer a caring manner. Many have yet to develop a comfort level with patients. They do not introduce themselves or do anything to try to make the patient feel more at ease. They may be very self-conscious thinking more about how they are coming across than about the patient’s pain, discomfort, or unease.

**Exceptions.** Are there physicians who disavow these patterns and genuinely encourage and demonstrate positive and caring interaction techniques with patients? Absolutely—and students often express admiration for them. Are there medical students and interns and residents who are disappointed at the lack of emphasis on patients as people? Absolutely—and they often

express concern that their own caring attitudes and behaviors will be threatened or lost due to the inhospitable environment. Are things changing? As described earlier in this chapter, some medical schools are attempting now to develop more humane settings for their students and to offer more encouragement for caring physician–patient interaction.

### THE MEDICAL SCHOOL EXPERIENCE: STRESS

Without question, the four years of medical school and the three or more years of internship/residency are an extremely stressful time. Some have chosen to regard this stress as simply a rite of passage. Recently, however, systematic attention has been given to this issue.

#### Stressors in the First Four Years

Based on clinical reports (case studies of medical students who seek psychiatric or counseling support), intervention studies that measure the impact of stress-reduction programs on medical students, and social surveys that measure self-reports of stress by medical students, three primary categories of stressors in the medical school experience have been identified (Carmel and Bernstein, 1987): (1) current academic stressors—including examinations and hours required for study; (2) anticipated medical career stressors—various aspects of patient contact; and (3) social stressors—especially the limited amount of time for relationships with friends and family.

In a study of students at an Israeli medical school, the “death of a child under your care” and “death of a young adult under your care,” were identified as the largest sources of stress. The other most commonly identified stressors in this study were “error in diagnosis or treatment,” “lacking time for family and friends,” and “death of an old person under your care.” The student’s gender, marital status, and year of study did not influence perceptions, though

older students were most likely to be troubled by the death of a child or young adult (Carmel and Bernstein, 1987).

#### Stressors During Internship and Residency

Considerable research has focused on the stressful position and lifestyle of medical interns and residents. These stresses usually occur at a point in life when other stressful life events also often happen: marriage and children, altered relationships with parents, financial worries, and postschool emotional letdown. Piled onto these activities are responsibilities that are often physically and emotionally draining. Three aspects of this role that are especially stressful are reviewed here:

1. **The grueling schedule.** The tradition of residencies calls for extended work shifts (often 36 consecutive hours on) with workweeks of 100 hours or more. The long shifts may include some time for sleep (in the hospital), but the resident remains on call and could conceivably not get any sleep during this time. The long hours are justified in various ways—as important socialization for the long hours physician’s work, an opportunity to learn more, and a way to staff hospitals—but the dangers of sleep deprivation (e.g., fatigue, lack of time for family and personal interests, and errors) are also well known.

These dangers were dramatized in the 1984 hospital death of Libby Zion—an 18-year-old woman who was brought to the emergency room of New York Hospital at 11:30 P.M. on March 4 and died (needlessly) seven hours later of bilateral bronchopneumonia. Although no criminal indictments were ever handed down, Zion was treated only by an intern and a junior resident each of whom had been at work for 18 hours. The grand jury criticized five specific aspects of the care Zion received as contributing to her death. Its report was viewed as an indictment of the traditional system of graduate medical education (Asch and Parker, 1988).

Most of the medical residents studied in the early 1990s reported sleep deprivation to be a problem, 10 percent said it was almost a daily problem, and 70 percent reported having observed a colleague working in an impaired condition (with sleep deprivation the most common cause) (Daugherty, Baldwin, and Rowley, 1998). In 2003 and again in 2011, the Accreditation Council for Graduate Medical Education approved national limits on the number of hours that medical residents can work (in the 2011 version, a limit of 80 hours per week, at least 10 hours rest between shifts, and not longer than 16 consecutive hours at a time for first-year residents and not longer than 24-hour shifts for residents beyond first year).

Some critics of the revised policy contend that the long shifts give students an opportunity to show their dedication to medicine, give them practice should they ever have to work such long hours, and are an important part of resident culture, and that hospitals cannot afford to hire replacements for the hours that are lost. However, there is substantial consensus that overworked and fatigued residents provide lower quality medical care with greater chance of error.

### 2. *Worries about medical school debts.*

Although medical school tuition comprises a very small percentage of the medical school budget (4 to 5 percent on average), it has been increasing rapidly in both private and public medical schools. Approximately 90 percent of medical students receive financial assistance, but increasingly this is in the form of loans (now about 87 percent is loan assistance). Today, almost all graduating medical students accrue some debt, about four in five owe at least \$100,000, about three in five owe at least \$150,000, and some owe more than \$300,000. The median medical school debt of 2012 graduates was \$170,000. Relative to other financial indicators, medical school is less affordable now than it has ever been. Research indicates that some qualified students forego a career in medicine due to the anticipated level of debt. Repayment of the

loan is a major worry for many medical students and often colors their perception of the entire medical school experience.

- ### 3. *Feelings of mistreatment.*
- Although it is difficult for students to speak up, many develop feelings of being abused by the medical school process. Both empirical research and widely shared personal anecdotes are beginning to portray the extent of these feelings. A study of 431 students at a medical school discovered that almost half felt that they had received some abuse in medical school, and by the fourth year, more than 80 percent reported personal abuse. The kinds of abuse reported included verbal abuse—insulting, humiliating, unjust statements; academic abuse—excessive workload, unnecessary scut work, unfair grade; sexual abuse—solicitation, harassment, sexism, discrimination; physical abuse—threatened or actual; and intentional neglect or lack of communication. Who did the abusing? For juniors and seniors, physician clinical faculty were most often cited; for freshmen, Ph.D. faculty were cited most (Silver and Glicken, 1990)—in both cases, the medical school faculty with whom they had most interaction. A recent study of female students at a New England medical school found that they became adept at dealing with inappropriate sex-based behavior from patients and female supervisors, but were more uncomfortable and less successful in handling unprofessional behavior by male supervisors (Babaria et al., 2012).

This comes as no surprise to Howard Stein (1990), a leading critic of medical education. According to Stein, students often arrive at medical school with idealism, a concern for others, and general communication skills but leave narrowly focused on biological factors and without the desire and ability to listen to and talk with others.

Medical students often use **excremental symbolism** to describe themselves, their work, their status, their clinical experiences, and their patients. They feel treated like “shit”; they are often asked to do “shit work”;

they learn who is entitled to “shit on” whom; one learns how much “shit” one must take and for how long. In effect, “one learns how to be a physician and how to occupy one of the highest of American social statuses by beginning as one of the lowest of the low” (Stein, 1990:201).

### The Toll of Stress

While some medical students handle stress better than others, the high level of stressors frequently results in high levels of distress (Collier et al., 2002). Studies document significant dysfunctional behaviors among medical residents. About one in eight residents increases alcohol or other drug use during residency (though residents use fewer drugs than demographically matched nonphysician groups); one in five fears that a current relationship will not survive the residency years; one in three suffers a significant depression sometime during the residency; and studies report between 27 and 58 percent of medical students engage in some form of cheating during medical school (Levey, 2001). Burnout is increasingly being recognized as a serious problem.

### THE MEDICAL SCHOOL EXPERIENCE: CAREER CHOICES

During medical school, students make several important decisions about their medical career. Among these decisions are the size and type of community in which to practice, the specific type of setting desired, and the field in which to specialize. Research has attempted to understand factors that influence these choices and especially if student preferences change (as they do for most students).

Research has shown that many students begin medical school with an interest in practicing in a small town or community, in an office-based setting, and in a primary care field. However, by graduation, they opt for a specialty located in a large city and/or being connected to an academic medical center (in all cases, away from areas that are more needed to areas

where physicians are well supplied). What motivates these interest changes? Exposure to (and being intrigued by) the research careers of faculty members, exposure to (and appreciation of) high-tech medicine, and the opportunity for larger salaries all play an influential role.

**Reasons for Specialty Choice.** Several factors influence the selection of a particular specialty. These include the content of the specialty; having a role model in a particular specialty; and the prestige, opportunities for cognitive performance, and future financial remuneration of the specialty. In recent years, medical students have begun to assign increased importance to a concept called **controllable lifestyle (CL)**—the extent to which particular specialties allow for some control over the hours worked (Newton, Grayson, and Thompson, 2005). Research has found that in the last decade CL has become a much more powerful influence on specialty choice of both female and male medical students (Dorsey, Jarjoura, and Rutecki, 2005). Even some young physicians practicing in primary care and surgical specialties are switching to CL specialties. Students choosing specialties having a noncontrollable lifestyle (e.g., internal medicine, family practice, pediatrics, and obstetrics-gynecology) rated altruism as being a more important motivator than did those selecting CL specialties (Schwartz et al., 1990).

**Choosing Primary Care.** What motivates a choice for **primary care**? In a study at eight New England medical schools, students selecting primary care rather than high-tech specialties were more likely to be motivated by opportunities to provide direct patient care and care in an ambulatory setting and the opportunity to be involved in the psychological aspects of medical care. The opportunity to do research and to perform procedures and a desire for a high income and a favorable lifestyle were more important factors in the decisions of those of their peers who selected high-tech specialties (Kassler, Wartman, and Silliman, 1991).

Does the formal and informal structure of medical schools influence these motivations for

type of practice? Yes. A mission of the institution that is consistent with community service and the presence of a primary care-oriented curriculum and physician role models in primary care do influence students to pursue primary care training.

Are these aspects of the program the chief influence on those seeking a career in primary care? No. According to several studies, the most important factors are admissions criteria and the selection of students into the medical school. Applicants who have a high *service index* reflective of a strong orientation to community service, have taken a generous number of non-science courses as an undergraduate (and who take several non-science electives in medical school), and come from a lower socioeconomic family background and rural areas are those who later are most likely to pursue a career in primary care. Because all these factors are

determined by the time of admission, medical schools could consciously choose those most likely to pursue primary care (Xu et al., 1999).

The accompanying box, “Health Care Reform and Medical Education,” identifies ways that medical education may be influenced by implementation of The Affordable Care Act.

### FUTURE DIRECTIONS IN U.S. MEDICAL EDUCATION

Abraham Flexner advocated a strong scientific foundation for medicine, but not at the expense of humanism. He envisioned the ideal physician as one in whom science and humanity were united. While medical education is strongly grounded in science, many question the degree to which humanism has been maintained as a key element. Research such as that which has



#### IN THE FIELD

##### HEALTH CARE REFORM AND MEDICAL EDUCATION

What effects will the Affordable Care Act have on medical education?

1. New medical schools will be created, and many existing medical schools will increase the number of students accepted into their programs to address the expected shortfall of physicians as more people will be able to access medical care.
2. Medical schools will further encourage students to enter a primary care field. These programs will involve the hiring of additional primary care physicians to the faculty, utilizing more ambulatory care sites for clinical instruction, and adding emphasis in the curriculum on prevention, public health, and effective communication with patients. These plans will supplement the greater financial rewards that managed care plans are investing in primary care. The federal government will revise formulas to increase compensation for primary care physicians and reduce compensation for specialists as a way to lower overall health care costs.
3. The federal government may increase subsidies to provide for the training of physicians and for clinical research and technological development conducted in AHCs. In the past, health insurers were willing to pay higher prices for care delivered in AHCs. Part of these extra funds subsidized research and development (R&D) activities. Now, price competition and regulation have reduced this surplus so that R&D activities are jeopardized. The government may choose to pick up part of the difference. In the last few years, the National Institutes of Health has significantly increased its financial commitment to medical research.
4. AHCs will increasingly seek formal relationships with managed care organizations and will make adjustments in their traditional organization. In order to remain competitive, the number of faculty, their salaries, and the creation of new programs may be diminished. AHCs will form partnerships with each other to reduce expenses.

discovered fourth-year male medical students are much less favorably inclined than first-year students toward caring for the medically indigent (Crandall, Volk, and Loemker, 1993), that empathy and compassion decline during the medical school years (Newton et al., 2008), and third-year students often feel it is difficult to practice patient-centered care when they are in medical sites where the opposite is role modeled (White et al., 2009) highlight this concern.

Edmund Pellegrino (1987), a distinguished university and health center administrator, has encouraged medical education to follow a path of medical humanism by emphasizing humanitarianism—humaneness and sensitivity to the patient’s needs as a person. While it is possible to heal in the strictest sense without compassion, he views healing as being more complex than simply applying the correct medical method. This is true because illness and disease affect the whole life of a person and because effective clinical decisions should be “morally good” as well as technically correct. This requires the physician to have some sense of what the illness means and does to the life of a particular patient.

Pellegrino suggests four specific avenues for fostering compassionate attitudes in future physicians:

1. **Selecting humanistic students.** Considering such qualities as independence and critical capacity, character and integrity, breadth of knowledge, evidence of leadership, work habits and motivation to study, personality and attitude, service orientation, altruism, personal effectiveness, and cultural sensitivity.
2. **Teaching the behavioral and social sciences.** To increase physicians’ knowledge about American society, culture, and subcultures; the role of human values in illness and healing; the importance of social structures and social roles for both patient and practitioner; and about health care financing, including costs and resource allocation.
3. **Teaching human values, ethics, and the humanities.** To teach skills of ethical analysis and moral choices, increase awareness of ethical issues in clinical decisions, and help

the student to understand the structure and origins of his or her own value system.

4. **Providing positive faculty role models.** Including treating students and patients with compassion, perhaps the most important change possible (Pellegrino, 1987). It is this final point with which Sam Bloom would most strongly agree.

Has any progress been made in these areas? Yes, but in some ways more than others. Most medical school admissions offices now eagerly search for applicants who have combined taking the requisite science courses with a major in a social science or humanities discipline. About 35 percent of medical school applicants have majored in something other than biology, chemistry, or another physical science, and they are just as successful or slightly more likely in getting admitted. Few medical schools have committed to a full integration into their curriculum of courses in medical ethics, medical sociology, medical anthropology, or medical economics. But, many schools have added elective courses in these areas and on topics such as physician–patient communication. While hospitals still represent the most common site for clinical experience, an increasing number now place students in community health centers and free health clinics. Some schools are beginning to take seriously the idea of producing “culturally competent” physicians and even physicians committed to social justice. Several schools have developed programs to create greater awareness of global health. These include international exchange programs, the development of global health “competencies” (such as in the global health burden and immigrant health), and in an increasingly diverse array of clinical, education, and research programs of AHCs in other countries (Merritt et al., 2008). Examples of the latter include establishment of an organ transplant center in Sicily by the University of Pittsburgh and joint medical schools in Singapore co-run by Duke University, in Qatar co-run by Cornell University, and a planned medical school in the United Arab Emirates sponsored by Harvard University.

## SUMMARY

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Until the early 1900s, formal medical education in the United States was often poorly organized, lacking in academic rigor, and discriminatory against women and racial and ethnic minorities. The **Flexner Report** issued in 1910 strongly recommended a science-focused, university-based curriculum with significant clinical practice. Though several schools have and are experimenting with innovations, the model Flexner advocated continues to dominate medical education. However, critics contend that current circumstances prohibit medical education from achieving many of its most important objectives.

Applications to U.S. medical schools increased in the early and mid-1990s, dropped for the next several years, but is now again on the upswing. Females now account for almost half of medical students, although the percentage of traditionally underrepresented minorities has dropped in recent years.

The medical school years have a profound influence on students. The structured, highly intense first two years in the basic sciences and the clinical experiences of the second two years not only are very stressful experiences but also help mold students' attitudes and values and career choices (especially away from interest in primary care fields in smaller towns and communities).

Among the most important value orientations to which students are socialized are a **tolerance for uncertainty** (learning to identify and accept what they do not know and what science does not know—and to distinguish between the two) and detached concern (learning to be concerned about the patient without being overly involved emotionally). Critics believe that formal and informal socialization often leads students to depersonalize and dehumanize patients, a problem that AHCs have recently begun to address.

## HEALTH ON THE INTERNET

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To find out what is happening in medical education or to learn about a particular medical school, you can gather information at the Web site of the American Association of Medical Colleges at

<http://aamc.org>.

For insight into what medical students are working on, go to the American Medical

Students Association (AMSA) at [www.amsa.org](http://www.amsa.org). Click on "Take Action" in the top menu to identify the issues on which this group is focusing. Focus especially on "Current Campaigns" to learn about specific programs.

## DISCUSSION CASE

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At a recent (hypothetical) meeting of government and education leaders in your state, the usual litany of problems in medical education and health care delivery was being discussed. Those present were sensitive to the large debts that most medical students incur and understood the pressure they felt upon graduation to enter specialties and move to locations where their earning capacity would be greater than if they practiced primary care in inner-city or rural areas—where needs are the greatest. Concern

was also expressed about the lack of access many people have to health care.

One of the leaders at the meeting proposed an idea to try to resolve both problems. Beginning with the next academic year, the state would initiate a mandatory program—it would pay the complete education costs for all students attending one of the state's medical schools. In return students would be obligated to spend the first four years of their career in a location assigned by the state—presumably an inner-city or rural

area in need of physicians. The idea is similar to the National Health Service Corps—an underfunded federal government program—and the Armed Forces Health Professions Scholarships but differs in that it is a mandatory program.

If a state referendum were held on this proposal, how would you vote? Is this a creative response to the problems of large debts of medical students and the lack of health care services in certain areas? Or, is the mandatory nature of

the program unfair to medical students? Does the government have a right to dictate practice site to physicians even if it does pay their medical education expenses? Might other students—in law, engineering, business, education, and sociology, for example—demand a comparable program? The state government could not afford all these programs—is medical education and the delivery of care qualitatively different?

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# CHAPTER 10

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## *Nurses, Mid-Level Health Care Practitioners, and Allied Health Workers*

### Learning Objectives

- Describe the circumstances in which nursing and midwifery originated.
- Identify key orientations included in nursing socialization.
- Select any two of the key issues in nursing today and discuss the various sides of the issues.
- Compare and contrast the responsibilities of nurse practitioners and physician assistants. Discuss the extent to which they have earned patient satisfaction.
- Evaluate the extent to which physicians have positive working relationships with nurses and with allied health workers.

The shift in dominance from acute to chronic conditions and the development of increasingly sophisticated medical technologies have led to a growing array of specialized practitioners within the health care field. These practitioners play an indispensable role in the provision of health care services. This chapter focuses on nurses and the field of nursing, mid-level practitioners, and allied health personnel.

### EVOLUTION OF NONPHYSICIAN HEALTH CARE PRACTITIONERS

#### Early America

Families rather than physicians were the most important health care providers in colonial America. Most families relied on their female members to provide for health care, and when additional help was necessary, they employed medically knowledgeable females from other families. Duties of these formally untrained, but

typically wise and benevolent, “nurses” generally focused on child care, surrogate breast feeding, birthing, and care of the ill.

**Early Midwifery.** Midwives were a vital source of care for women in colonial times. Most came from England, where the Church of England granted licenses to practice. They were generally held in high esteem and often paid for their services, even though they were sometimes suspected of practicing witchcraft (e.g., in the case of an impaired baby). Many midwives served on southern plantations; some were slaves, others were white women who were paid in kind for their services. Although formal training was not available in the United States, some manuals were in print so that any woman who had borne children herself and had assisted in a few births could be designated a midwife.

With the development of the obstetric forceps and the subsequent acceptance of midwifery as a science, male physicians assumed greater

responsibility for the birthing process. This transition was enabled by a belief that women were incapable of understanding and performing obstetric techniques. As formal medical education in the United States became available and was routinely restricted to men, physicians gained even further advantage over female midwives and attempted to monopolize the birthing field.

**Early Nursing.** The increased dominance of males in the birthing process led many women to the field of nursing. Many became private duty nurses whose responsibilities were to tend to the sick at their bedside and provide both caring and curing services. Most of these nurses were relatively uneducated and lacked any formal nursing training, but they did provide a valuable service (Reverby, 1987).

While private duty nursing was regarded as an acceptable occupation, hospital nursing—given the marginal nature of hospitals at this time—was perceived to be less desirable. Many hospital nurses both lived and worked in the hospital (and often were recovering patients themselves). Their qualifications and the quality of their work were very uneven. The job was marked by long hours, physically demanding responsibilities, and frequent friction with physicians and hospital managers over the content and pace of their work.

The importance and visibility of nursing increased during the Civil War. Thousands of women on both sides of the conflict established hospitals and worked in them as volunteers and paid nurses. Many were working-class women who were accustomed to hard labor as domestics and nurses, although others were middle-class women who had not worked previously for wages outside the home. In addition to patient care, some worked through the Sanitary Commission, which implemented several innovative public health measures, while others attempted to create a role for women in the army's medical system.

### Post–Civil War to 1920: Professional Medicine and Separate Domains

**Growth of Health Care Institutions.** With the end of the Civil War and the beginning of

accelerated urbanization and industrialization, many families were separated geographically. Increasingly, nonfamily members were needed to provide care for the sick and injured and in places other than the home. It was particularly important to the growing “middling class” that the caretakers in institutions be as “reliable, respectable and clean (in all senses) as the mothers or sisters . . . formerly charged with the responsibility” (Baer, 1990:460).

As a result, a custodial role of “nurse” was established in these institutions. “Religious sisters managed Roman Catholic, Lutheran, and Episcopal hospitals. Community women worked for wages in hospitals for the working poor. In big city almshouses, “the progression from inmate to keeper to assistant nurse to nurse comprised a sort of job ladder” (Baer, 1990:461). None of these “nurses” had formal training.

**Advent of Nursing Education.** As more and more hospitals demanded public assistance in caring for the ill, demands for formal training of nurses accelerated. Programs were developed around the philosophy of **Florence Nightingale**, an upper-class British reformer, who believed that the proper moral, environmental, and physical order was necessary for the restoration of health. She accepted a sexual division of labor as given and believed that women's characteristics made them natural for creating the conditions needed for care of the ill.

Despite the fact that nursing was known for its drudgery, it attracted both white and black women who regarded it as a way to serve fellow human beings and an opportunity for personal autonomy and geographic mobility. However, employment opportunities for trained nurses were few. After completion of training, the nurse often had neither a place in the hospital (which depended upon cheap student labor) nor in private duty (where cheaper, untrained nurses were typically used). Many physicians and families were unconvinced that the training offered any significant benefit (Reverby, 1987).

**Maternity Care.** By the late 1800s, the American medical profession had taken specific

steps to ensure a place for obstetrics. In 1859, practical medicine and obstetrics was designated as one of four scientific sections of the American Medical Association (AMA), and in 1868, the *American Journal of Obstetrics* became the first specialized medical journal published in the United States. In 1876, the American Gynecological Society was formed, followed by establishment of the American Association of Obstetricians and Gynecologists in 1888.

In spite of these developments, at least half of all births were still attended by midwives at the beginning of the twentieth century. Midwives were especially important for southern black families, immigrant families, and families living in rural areas. On the other hand, middle- and upper-class women were more likely to have physician-assisted deliveries. There was a general belief, however, that lack of adequate maternity care was a problem.

**Home Nursing Care.** An important source of employment for nurses at the turn of the century was in agencies that provided home nursing care. These agencies were primarily located in northeastern cities, which had large concentrations of immigrants and were characterized by poverty, disease, and unsanitary conditions. In the beginning, a few wealthy women hired nurses to visit the poor sick in their homes, but visiting nurses soon became very popular in other settings. All types of groups began to hire these public health nurses including Metropolitan Life, which discovered that it could reduce the number of death benefits it had to pay by offering home nursing service to policyholders.

### 1920s Through the 1950s: The Advent of Scientific Medicine

**Midwifery.** Debate concerning the regulation of **midwifery** reached its height between 1910 and 1920. In 1921, the Sheppard-Tower Maternity and Infancy Protection Act provided funds in several states for midwife education and registration. By 1930, all but ten states required midwives to be registered. These regulations

were partly responsible for the decline in midwifery, but other factors such as declining birth rates, restricted immigration, an increase in the number of hospital beds available for maternity cases, and a growing anxiety about the danger of birth also contributed to the decline. However, midwifery was sustained by the needs of the urban and rural poor (DeVries, 1985).

The first *nurse-midwives* to practice in the United States were brought from England in 1925 by Mary Breckinridge as part of her plan to provide health care for the rural people in Kentucky. As a consequence of these midwives' services, comprehensive health care services were made available to the rural population, and the maternal death rate declined dramatically. Eventually several states passed laws granting legal recognition to midwives, and several midwifery schools were established as a result.

**Emergence of Staff Nursing.** During the Depression years, the emphasis on nursing shifted back from private duty nursing to hospital staffing. While there was an oversupply of nurses in the 1920s and 1930s, a shortage developed during World War II. This was due in part to the fact that women had opportunities for better paying jobs in war-related industries. This shortage led to the creation of "practical nurses" and nursing assistants. Although these new occupations initially provided a temporary solution to a short-term problem, their contributions to health care were evident, and they eventually became permanent health care occupations.

**The New Allied Health Workers.** The emergence of **allied health workers** (e.g., health care workers like physical therapists and medical technologists whose work supports that of the physician) occurred during the second quarter of the twentieth century. The development of these positions was encouraged by the complexity of new methods of diagnosis and treatment that required a specialist and by the fact that there were not enough primary care physicians to handle the additional workload.

Beginning in the 1930s and continuing into the 1940s, the Committee on Allied Health

Education and Accreditation (CAHEA) (now the CAAHEP as described later in the chapter), sponsored by the AMA, began to accredit a variety of allied health occupational areas. “Essentials” (nationally accepted minimum standards for an educational program) were first adopted for occupational therapy programs in 1935 and for most other allied health fields in the late 1930s and 1940s.

### Nursing Moves Away from Patient Care.

During World War II and its aftermath, nursing moved away from direct patient care. Other than distributing medication, nurses spent much of the war years in the nurses’ station, coordinating other staff, making notes on charts, and keeping records. In response, new categories of nurse-related workers emerged to provide direct patient care: the **licensed practical nurse (LPN)** or vocational nurse and the nurse’s aid (Reverby, 1987).

Meanwhile, nurse-midwifery struggled to establish standards for education, legal recognition, and professional identity. In 1955, the American College of Nurse-Midwifery was founded; it subsequently joined the Kentucky-based American Association of Nurse-Midwives in 1969 and formed the American College of Nurse-Midwives. But legal recognition continued to be a problem. By 1959, just two states, New Mexico and New York, formally recognized the nurse-midwife despite the positive impact of nurse-midwifery on maternal and infant mortality rates.

## NURSES AND THE FIELD OF NURSING

### Overview

In the United States, regulation of the field of nursing is a state responsibility. Under a state board of nursing, each state licenses nurses and defines the boundaries of the practice. All states require that prospective nurses attend an approved training program and take a national licensing examination. Certification is administered by the **American Nurses Association (ANA)** and its various specialty organizations.

**Types of Nurses.** There are three main types of nurses:

1. **Licensed practical nurses** typically are high school graduates who have completed an additional one-year vocational program and have passed an examination leading to the LPN certification. There were approximately 752,000 LPNs in the United States in 2012—a number expected to grow to 921,000 in 2020.
2. **Registered nurses (RNs)** have obtained a diploma or degree in nursing; they are distinguished by the type of nursing education they have completed. In 2012 there were approximately 2.74 million employed nurses in the United States—a number that is expected to grow to 3.45 million in 2020.
  - a. **Diploma nurses** have completed a three-year program in a hospital-based school of nursing. Until the early 1970s, most registered nurses graduated from a diploma school, though now only a small percentage of RNs (about 4 percent) graduate from these programs.
  - b. **Associate degree nurses** have completed a two- to three-year program consisting of both academic and nursing courses in a community college or junior college-based program and earned an associate degree and a nursing license. These programs primarily offer a vocational orientation to nursing. Presently, 59 percent of nurses graduate from these programs.
  - c. **Baccalaureate nurses** have completed an undergraduate curriculum of academic courses usually with a nursing major and have earned a BSN (Bachelor of Science in Nursing) degree. With a greater emphasis on theory and broad-based knowledge, these programs offer more of a professional orientation to nursing. Generally speaking, the more education one has completed, the higher status the nurse enjoys. Baccalaureate programs now produce 37 percent of nursing graduates but are becoming more common. In addition, many colleges that already offer the BSN degree

have begun to offer “RN to BA” programs in which nurses with an associate degree can add additional courses to earn the baccalaureate degree and “BS/BA to RN” programs for those with a baccalaureate degree in a field other than nursing.

3. **Advanced practice registered nurses (APRNs)** are registered nurses who have acquired additional certification in one or more of about 20 nursing specialties. The largest categories of APRNs are nurse practitioners (NPs), clinical nurse specialists, nurse anesthetists, and nurse-midwives. Each has a unique history and context, but shares the commonality of being APRNs, either in primary care (e.g., nurse practitioners and nurse-midwives) or in acute care (e.g., clinical nurse specialists). These nurses often have a master’s degree. They must pass a certifying examination; and they handle many responsibilities that have traditionally been handled by physicians. There are now more than 240,000 APRNs in the United States—a number expected to grow significantly.

**Key Roles of Nurses.** McClure (1991) identifies the two key roles held by nurses today as being the caregiver and the integrator. As a caregiver, the nurse functions to meet patients’ needs: dependency (hygiene, nutrition, safety,

etc.), comfort (physical and psychological), therapy (medications and other treatments), monitoring (collecting, interpreting, and acting on patient data), and education. As an integrator, the nurse coordinates the contributions of separate medical units in the hospital or clinic to provide total and effective patient treatment and care.

Viewed from another perspective, Chambliss (1996) identifies three difficult and sometimes contradictory roles that hospital nurses must fulfill. First, nurses must be caring individuals who interact directly with patients and work with them as “whole people.” Second, nurses are professionals who have an important job that requires special competence and deserves special status and respect. Finally, within the hospital hierarchy, nurses are subordinate workers often under the direction of physicians. The contrasting expectations created by these disparate roles place nurses in an awkward position where the practical requirements of the job may explicitly conflict with the moral expectations of the professional role.

### Nurse Supply and Demand

After many years of a major shortfall of nurses in the United States, significant growth—especially among individuals in their early-to-mid-twenties—occurred in the first



Despite continually expanding responsibilities, nurses are often still the primary caregivers in the health care setting.

decade of the 2000s. While few have declared the nurse shortage to be completely resolved, the present picture is the most promising than it has been in the last few decades (Auerbach, Buerhaus, and Staiger, 2011). During the previous 20 years, hospitals routinely reported nurse vacancy rates above 10 percent, and many community-based nursing jobs (e.g., in home health care) went unfilled. These numbers have sharply declined even as the number of nursing positions continues to grow. On the other hand, it is possible that the surge in interest in a nursing career is a temporary bubble—an attraction to a career with huge demand during an economic downturn. Should that be the case, the country may reenter an acute nurse shortage (Staiger, Auerbach, and Buerhaus, 2012).

Several factors have converged to create a high demand for nurses. These include the increased number of elderly people seeking care; the heavy time demands of patients with chronic diseases; delays in seeking treatment by the medically uninsured, thereby increasing the severity of illness; the expansion of home health care; an expansion of school nursing; and increased use of a wide variety of health care technologies (for which nurses must have at least sufficient knowledge to coordinate care). In addition the average age of today's nurses is in the late forties, so the annual number of retirements has been high and will continue to increase. The federal government estimates there will be a shortage of 260,000 nurses by 2025, an extraordinarily high number but much less than earlier forecasts (American Association of Colleges of Nursing, 2013).

Hospitals have addressed the nurse shortage in several ways, including attempts to reduce demand and increase supply. In order to reduce demand, some hospitals have reorganized staff responsibilities by hiring less well-educated individuals to do traditional nursing tasks in order to downsize the number of nurses who are needed (Aiken, Sochalski, and Anderson, 1996). This effort is a very contentious issue in medicine and is discussed in more detail later in this chapter. Hospitals and other medical sites have also tried to increase supply by significantly

increasing salaries. Nursing has been a traditionally very underpaid career, but measurable progress has been made. In 2010, the median salary was approximately \$40,000 for licensed practical nurses and approximately \$65,000 for registered nurses.

A further response that hospitals and health systems have made is to heavily recruit nurses from other countries, especially third-world countries. This practice has raised some important ethical questions that are addressed in the accompanying box, "Recruiting Nurses from Abroad."

### Recruitment and Socialization

Nursing school enrollments have fluctuated during the last two decades—actually declining from 1995 to 2000 but increasing each year since then. A particularly unfortunate problem is that an estimated 40,000 qualified applicants to nursing schools are turned away each year due to an inadequate number of available spots in nursing schools. This has been traced primarily to a shortage of nursing faculty. Many of those with the educational credentials to serve on the faculty are now taking advantage of increased opportunities in health care management and increasing nursing salaries and are leaving education. The average age of nursing instructors is over 50, which means that a large cohort will be reaching retirement age in the next decade, and the shortage could become even greater (Aiken, Cheung, and Olds, 2009).

### Background of Nursing Students.

Although the nursing field remains female dominant (93 percent of nurses are female), the number of men entering nursing is increasing. Today, males account for about 15 percent of registered nursing students and about 6 percent of advanced practice nursing students. Unlike medical students, nursing students have traditionally been drawn from working- and lower-middle-class families whose parents are less likely to be college educated than are those of comparable non-nursing students. In part, they have been drawn to nursing because of the security of employment and the opportunity to move into the middle class.



## IN THE FIELD

### RECRUITING NURSES FROM ABROAD

Faced with a sizable and chronic shortage of nurses and an inability to adequately address the problem, hospitals and health care systems in the United States have begun intense recruiting of nurses from other countries. Recruiting has been most successful in the Philippines, India, Canada, Nigeria, Korea, the United Kingdom, and Russia and is now intensifying in Mexico. The National Council of State Boards of Nursing began in 2004 to offer the mandatory U.S. licensing nursing exam in other countries to make it easier to get licensed. Hospitals frequently employ recruiting companies (and pay as much as \$15,000 to \$20,000 per hire) to secure nurses to come to this country. About 4 percent of the nation's nurses were educated outside the United States, but this percentage is increasing by more than 10 percent per year.

The interest of nurses in other countries—especially very poor countries—is

understandable. The average monthly take-home salary for nurses in Mexico is \$300 or \$400; in India it is less than \$100, compared to more than \$5,000 in the United States. However, there can be drastic consequences for the health care system in the countries from which the United States is recruiting. Joyce Thompson (2003:20), a professor of community health nursing at Western Michigan University, says that the practice is “clearly devastating the health care infrastructure” in several of these countries, which have been forced to close hospitals due to a lack of nurses (1,000 hospitals in the Philippines alone have been forced to close). Thompson personally witnessed the exodus of nurses from Africa during her work on a program promoting women's health in Uganda and Malawi. Her reaction: “It's always difficult (to see) a resource-rich country that hasn't planned appropriately depend on lesser-developed countries to meet their needs.”



Men are occupying an increasing number of nursing positions. Today, about 10 percent of nurses are male.

Moreover, nursing students have traditionally reflected some value differences from other students. Over the years, several studies have found nursing students to be more likely to place value on “helping others,” “altruism,” and being “nurturant” and less likely than others to endorse “doing well financially” and “personal power” as important life goals.

In recent years, some important shifts have occurred. Until the surge of interest by individuals in their twenties in the 2000s, nursing students tended to be older (often in their thirties and forties) than students in the past, more likely belonged to a middle-class background, frequently worked part-time in addition to going to school, and many were parents (often single parents). For many, nursing is a second career—one to which they have been drawn later in life and one which is attractive at least as much for its socioeconomic rewards as for the opportunity to enter a helping career. Research has confirmed that in the last two decades, the value of altruism as a motivating force for entering the field or being willing to change shifts has declined in response to the different position in the life course. However, there is also a greater focus on the professional aspects and expectations of nursing, such as valuing complete honesty in the communication with patients (Johnson, Haigh, and Yates-Bolton, 2007).

**Socialization of Nursing Students.** The socialization of nursing students has received much less systematic study than that for medical students. One of the best studies of nursing socialization was conducted at a West Coast school of nursing by Fred Davis (1972). He discovered a six-step socialization experience not unlike that experienced by medical students.

Students enter nursing school with an *initial innocence*, seeking to become mother surrogates by engaging in nurturant and helping behaviors. The failure of nursing instructors to endorse or model this image, however, creates frustration and anxiety. Students spend their time learning technical and seemingly inconsequential skills. Later during the first semester, students enter a *labeled recognition of incongruity* stage. This includes open statements of disillusionment

and despair over the incongruity between their anticipated view of nursing school and their actual experience. Many question their career choice, and many drop out of nursing school during this time.

Students who remain enter a *psyching out* the faculty stage (just as medical students do, as described in Chapter 9). They attempt to determine what part of course materials and training the faculty thinks is most important so that they can concentrate on that. Typically, they realize that the faculty places high value on professionalism, and like it or not, the students collectively begin to mold their behavior in that direction. This is the *role simulation stage*, which usually occurs around the end of the first year. Students engage in a type of role-playing in which they consciously attempt to exhibit the professional demeanor toward patients desired by the faculty. However, as their behaviors become more convincing, the students gain confidence in themselves.

As the students enter the second half of their training (the *provisional internalization* and *stable internalization* stages), they increasingly accept a professional identity and get accustomed to it until, by graduation, it is typically fully accepted and internalized.

However, even by the fourth year of school, substantial value differences may exist between students and their nurse instructors. Eddy and her colleagues (1994) discovered that faculty placed significantly more value than students on freedom (e.g., honoring patients’ right to refuse treatment), equality (basing care on patients’ needs and not their background characteristics), and human dignity (e.g., maintaining confidentiality), while students placed more emphasis than faculty on aesthetics (creating a pleasing environment for patients and a pleasant work environment for self and others). The study authors suggested that responses reflected students’ idealism about work settings and lack of experience in actual settings.

### Occupational Status

While it is common to speak of “the nursing profession,” many nursing responsibilities are

under the direction of physicians, and this external control is considered a primary barrier to a genuinely professional status. At the same time, however, nurses have gained greater autonomy in recent years. This is largely a result of the strengthening of nursing education and the professionalization of nursing so that nurses have a desire to have more independence in patient care and exercise this independence.

In addition, nursing associations have developed a larger advocacy voice. The most prominent nursing associations are the American Nurses Association (ANA), the National League for Nursing (NLN), and the **National Nurses United (NNU)**. The majority of ANA members are registered nurses with practice-related concerns. The ANA has experienced considerable tension in recent years over the best way to lobby for nursing role in the changing health care system. The membership of the NLN is composed primarily of nursing educators and agencies associated with nursing education. Their primary goal is to promote quality standards for nursing education. In 2009, three major nursing associations—the Massachusetts Nurses Association, the United American Nurses (a federation of more than 20 state nursing associations), and the California Nurses Association—combined forces to create the National Nurses United. This is by far the largest nurses association ever, and it has adopted an aggressive strategy to promote its causes. Its approaches include extensive lobbying, marches, and demonstrations in Washington and around the country. It has affiliated with the AFL-CIO.

Table 10–1 reports nurses' job satisfaction levels about specific aspects of nursing.

### Issues in Nursing Today

**Education and Image.** Throughout its history, nursing has struggled internally to define its primary goals and purposes. In essence, one faction has attempted to maintain an image of a nurturer/caregiver while another faction has worked to professionalize nursing by emphasizing education and a scientific-based nursing curriculum.

**TABLE 10–1 Nurses' Satisfaction With 11 Job Elements, 2005**

Job Element	Percentage Satisfied (%)
Interaction with other nurses	67
Professional status	65
Professional development	62
Interaction with physicians	59
Nursing management	55
Overall job enjoyment	54
Nursing administration	54
Autonomy	51
Decision making	47
Workload	47
Pay	41

Source: Data from American Nurses Association, 2005, "Survey of 76,000 Nurses Probes Elements of Job Satisfaction." [www.medicalnewstoday.com/articles/21907.php](http://www.medicalnewstoday.com/articles/21907.php).

This controversy over image centers on educational preparation. At one time, most practicing nurses were diploma trained, and they actively resisted increased emphasis on training in academic institutions and curricular changes that would make science rather than technique the primary focus of nursing education. Today, however, in spite of this resistance, nearly all training occurs in academic institutions, with science increasingly at the core of the curriculum.

Some friction remains between graduates of associate degree and four-year programs. Because associate-level and bachelor-level programs prepare students for the same state licensing examination, it is assumed by many that they can perform at the same skill level. Advocates of bachelor-level programs are concerned that two-year programs do not adequately prepare for the rapid changes in modern technology that nurses now encounter. Advocates of associate-level programs dismiss the need for an undergraduate degree and prefer the technique-focused curriculum. Because hospitals do not typically differentiate training background when determining salary and responsibilities, advocates of baccalaureate training feel this devalues the bachelor's degree.

Since 1965, the ANA has tried unsuccessfully to make a bachelor's degree the minimum educational requirement for licensure of registered nurses. In 1985, the ANA revised its stance to recommend two levels of nursing based on educational preparation: the professional nurse with a baccalaureate degree and the technical nurse with an associate degree.

This is consistent with the concept of **differentiated practice**. A differentiated practice model bases the roles and functions of registered nurses on education, experience, and competence. It clarifies which type of registered nurse is appropriately accountable for which aspects of nursing by separating technical and professional practice. Proponents of the model believe that it will lead to more effective and efficient patient care, increased job satisfaction among nurses, and greater organizational viability. A sizable number of hospitals across the nation are now using some type of differentiated practice model.

In 2010, the well-respected Institute of Medicine (IOM) recommended that the percentage of nurses with a baccalaureate degree be increased to 80 percent. Among the reasons cited is the fact that a much larger percentage of baccalaureate nurses than associate degree or diploma nurses eventually pursue an advanced practice nursing degree. Contending that the health care system desperately needs more nurse practitioners and other advanced degree nurses, the IOM advocated for increasing the percentage of nurses with an undergraduate baccalaureate degree (Aiken, 2011).

Overall, the image of nurses is very positive. A *USA Today/Gallup Poll* in 2006 found that nursing was seen as the “most ethical” occupation. Table 10–2 presents data from the poll for health-related occupations only.

**Specific Job Responsibilities.** Without question, nurses have taken on additional responsibilities in recent years. Some of these involve direct patient care, although others simply comply with bureaucratic requirements. Contrary to about 20 years ago, nurses are now involved in assessing patients, reading particular tests and lab results, inserting intravenous

**TABLE 10–2** Rankings of Honesty and Ethical Standards of Occupations, 2006

Occupation/Career	Percentage Ranking Very High or High (%)
Nurses	84 (highest overall ranking)
Pharmacists	73
Veterinarians	71
Medical doctors	69
Dentists	62
Psychiatrists	38
Chiropractors	36
Insurance salespersons	13
HMO managers	12

Note: Results reported only for health-related occupations/careers.

Sources: *USA Today/Gallup Poll*, December 8–10, 2006. *USA Today*, December 12, 2006, p. A8.

lines, checking for any abnormalities, monitoring blood pressure, and participating in do-not-resuscitate orders, and have familiarity with and use of information and medical technologies (Skiba, Connors, and Jeffries, 2008).

However, studies have found that between 25 and 50 percent of what registered nurses do in the hospital “has nothing to do with nursing, and instead involves running errands, doing paperwork, delivering and retrieving laboratory specimens, and so forth” (Friedman, 1990:2977). The excessive workload created by these routinized tasks, the perceived lack of input into decisions, and poor internal communication are among the factors that have been demonstrated to influence nurse morale and voluntary turnover (Davidson et al., 1997). The accompanying box “The Bureaucratization of Nursing” shows many nurses’ frustration with the amount of paperwork now required.

The increased responsibilities taken on by nurses have occurred simultaneously with other significant changes related to nursing practice—a dramatic increase in involvement in ethical questions (e.g., in the treatment of impaired newborns or in handling do-not-resuscitate decisions), the emotional and physical demands of working with AIDS patients, and the ever-increasing numbers of very ill, geriatric

patients. Many believe that nurses are simply being assigned too many different responsibilities within the hospital setting.

**Downsizing Nursing Staffs.** In the mid-1990s, hospitals throughout the country began to reduce their nursing staffs. Responding to pressures to become more cost-effective, hospitals cut back on nurses and reassigned some of their job responsibilities to a new category of health care workers, variously referred to as “nurses’ aides,” “patient care technicians,” “unlicensed assistive personnel,” and “care associates.” These workers, who sometimes receive only a month or two of training,

typically assist with such tasks as changing linen, bathing patients, and assisting physicians with routine procedures, but they are also involved in EKG testing, drawing blood, and respiratory therapy (Norrish and Rundall, 2001). An ad that was posted on commuter trains and in bus-stop shelters in New York City and carried in *New York* magazine read, “BABY CARE TECHNICIAN WANTED—Work with newborns and preemies in NY hospitals. Regulate incubators, draw blood, insert feeding tubes, give medications. On-the-job training. NO EXPERIENCE NECESSARY/NO EDUCATION NECESSARY” (Moore, 1995:3).



## IN THE FIELD

### THE BUREAUCRATIZATION OF NURSING

“This is just such a waste.” Helen is standing at her medication cart, writing on a clipboard with a patient’s room number at the top. There are several clipboards piled beside the one she is writing on. “All this writing. I don’t know why we do it,” she says.

It is just after 2 P.M. The nurses on the next shift will be coming in soon, and Helen is nowhere caught up with her paperwork. She will stay until after 4—more than an hour after her shift ends—to complete it. It is not an unusual occurrence.

Helen and the other nurses on Five East know the rationale for the paperwork. When asked, they all give a variation of this answer: “If it’s not documented, you didn’t do it.” It is a refrain prompted by an era of lawsuits and insurance.

If a patient sues and says something wasn’t done, the hospital needs a written record to prove it was. It won’t do any good to have a nurse simply say she did it. Likewise, if an insurance company questions whether a patient actually got a treatment on the bill, it doesn’t do the hospital any good to have the nurse say it was done. It must be in black and white.

The hospital has all kinds of forms to help nurses prove they did things. The clipboards,

for instance, hold a four-page form called “Nurse’s Progress Notes.” Every two hours, the nurse must record the status of her patient. The form also has a checklist—also filled out every two hours—that tells such things as whether the patient has had a bath, needs turning, is in traction, or is wearing an abdominal binder.

That’s not all. There’s another section of this form entitled “Nursing Assessment” where the nurse evaluates a patient’s organ systems: such things as motor skills, heart sounds, and respiratory patterns. Each patient also has a “Nursing Care Plan” that must be filled out by the nurse on each shift. Each care plan actually consists of several individual plans. The number of plans depends largely on how sick the patient is.

One plan focuses on a patient’s “impaired physical mobility.” It states why the patient has the problem, what the nurse can do to overcome the problem, and what the patient can do. Other plans might focus on controlling infection, pain control, psychosocial concerns, or overcoming a patient’s “knowledge deficit.”

“The patients would be much better off if we could get through this and have more time to take care of them,” Helen says, glancing at a pile of paperwork. The nursing assessments and care plans are only part of the story. Each time a

(Continued)

(Continued)

patient gets medication, it must be recorded and signed on a form at the nurse's cart. That can mean an awful lot of writing for several patients. During one shift, Helen had seven patients. One was to get 16 medications, another 15, and another 12. The total for all seven was 72.

. . . The nurses on Five East had no quarrel with a national study that estimated the

average hospital floor nurse spends about 40 percent of her time doing paperwork. "The sad part is, it keeps you from spending time with your patients," Dietrich says. "It's frustrating. You are here until five o'clock so you can finish your paperwork." Dietrich says a colleague put it best when she said, "The nursing has gone out of nursing" (Hite, 1990).

The ANA and other groups charged that this "reconfiguration" is threatening quality patient care (see the accompanying box, "Discontent Among Nurses: A Report on Hospital Care in Five Countries"). An impressive array of studies have linked longer hospital stays, higher patient mortality rates, and higher rates of adverse outcomes with lower RN-to-patient ratios. To make up for a nursing shortage, hospitals often direct nurses to work extended shifts (sometimes even 12 hours or more) and extra shifts. Research now documents that the risks of making a medical error increase for nurses working these long hours (Rogers et al., 2004). A 1994 survey of nurses conducted by the Boston College School of Nursing (reported in *Modern Healthcare*) found that 43 percent of nurses employed in Massachusetts hospitals felt that unsafe staffing levels were in existence in their own hospital (Burda, 1994).

A 2004 to 2005 study examined attitudes about the nursing shortage among physicians, chief executive officers, chief nursing officers, and registered nurses. They substantially agreed that the nursing shortage impaired communication with patients, negatively impacted nurse-patient relationships, reduced hospital capacity, and lowered quality of care as measured by timeliness, efficiency, and patient-centered care. There was less consensus among groups on the effect of the nursing shortage on physician workload, the closure of particular programs, and the amount of time available for team collaboration. The key differences between the nurses/CNOs and the physicians/CEOs related to patient safety and the quality of the nurses' work environment. In both areas, nurses largely perceived negative impact while physicians and CEOs did

not (Buerhaus et al., 2007). This issue is likely to be at the forefront for the next several years.

**Level of Political Activism.** The frustrations that many nurses feel with their working conditions have fostered increased political activism, and in recent years, union organizing has been especially fervent among nurses and other non-physician health care workers. Some state nursing associations have disaffiliated with the ANA (which is both a professional association and union) believing it to be too moderate. Nurses in California in 1995 and Massachusetts in 2001 broke with the ANA so that they could more aggressively try to combat issues such as staff shortages and mandatory overtime on their own. Some other state nurses' associations created a new union, the National Nurses United (NNU), a new rival to the ANA. The New York State Nurses Association withdrew its membership from ANA in 2012 and is expected to join the NNU.

A prime objective has been to get state legislatures to adopt nurse-staffing laws that require hospitals to maintain at least a minimum ratio of nurses to patients. California was the first state to pass such legislation. In specifying the minimum ratio, California nurses recommended it be one nurse per three patients; California hospitals recommended that it be one nurse per ten patients (it eventually was set at one nurse per six in medical-surgical units, one nurse per four in pediatric wards, and one nurse per two in intensive care). These efforts received a major boost in 2010 with the publication of a major study of the effect of nurse-patient ratios. The study was done by comparing the state of California (with minimum ratios) to

Pennsylvania and New Jersey (without minimum ratios). Researchers found that the ratios required in California enabled nurses to spend more time with patients, better monitor patient condition, inspire more confidence in patients and their families, lower patient mortality, and reduce nurse burnout (Aiken et al., 2010).

### MID-LEVEL HEALTH CARE PRACTITIONERS

Two key problems in health care today are very high health care costs and a shortage of primary care physicians, especially in many rural and inner-city areas. One response to both these critical problems has been the creation of several **mid-level practitioner** positions jointly referred to as **physician extenders (PEs)**. These positions include several **advanced practice**

**nursing** positions—the **nurse practitioner (NP)**, the **certified nurse-midwife (CNM)**, and the **certified registered nurse anesthetist (CRNA)**—and the **physician assistant (PA)**. These physician extenders offer several benefits to the health care system: They enable physicians with whom they work to see from 20 to 50 percent more patients; they provide extensive services to patients in rural and inner-city areas that have a shortage of physicians; they are cost-efficient because they earn less than physicians; and many research studies have found that they offer high-quality services that are appreciated by patients.

### Advanced Practice Registered Nurses

**Nurse Practitioners.** A nurse practitioner is a registered nurse with a graduate degree in



### IN COMPARATIVE FOCUS

#### *DISCONTENT AMONG NURSES: A REPORT ON HOSPITAL CARE IN FIVE COUNTRIES*

In one of the largest studies of its kind ever done, a 2001 survey by Aiken and her colleagues of more than 43,000 nurses in 711 hospitals in the United States, Canada, Germany, England, and Scotland found widespread discontent. Though the countries have very different types of health care systems, nurses reported similar shortcomings in their work environment and in the quality of hospital care. Five sources of discontent emerged in the study:

1. A large majority of the nurses in all five countries indicated that there are not enough registered nurses in their hospital to provide high-quality care, that there is not enough support staff, and that hospital management is nonresponsive to their needs.
2. Nurses in most countries reported that their workload increased in the last year while nursing managerial staff were eliminated or decreased.
3. Nurses in the United States, Canada, and Germany reported that they often spend

considerable time on nonnursing-skill duties (e.g., cleaning rooms and transporting food trays), while many tasks that are markers of good patient care (e.g., oral hygiene and skin care) are left undone.

4. Nurses reported concerns with the quality of patient care being delivered. Only one German nurse in nine, and one in three nurses in the other countries, rated the quality of nursing care on their unit as being excellent. Nurses in the United States and Canada were most likely to report that the quality of care provided had deteriorated in the last year.
5. Many of the nurses are dissatisfied, burned out, and intent on leaving nursing.

Interestingly, the nurses reported positive feelings about the quality of the physicians and nurses with whom they work and about physician–nurse interaction. Their complaints focused on problematic working conditions and the negative effects of those conditions on the quality of patient care.

advanced practice nursing. About 90 percent of NPs complete a two-year master's degree beyond the RN, and some even obtain additional degrees (a doctoral degree in nursing practice is now available). Nurse Practitioners are able to do about 70 to 80 percent of the basic primary and preventive care offered by physicians. They do social and medical histories; conduct physical examinations, including breast and pelvic exams; do pregnancy testing, Pap smears, and tests for sexually transmitted diseases; provide or prescribe contraceptive devices; and order laboratory tests and X-rays. They engage in patient counseling and provide health education. In 2010 there were approximately 180,000 NPs in the United States (106,000 were practicing), and slightly more than 50 percent of them were working in primary care (most often in hospital inpatient and outpatient settings, private practice, primary care settings, and school settings). Expectations are the number of nurse practitioners needed will be 244,000 by 2025. In 2012 the median salary of NPs was \$94,000.

Nurse practitioners are licensed by the state in which they practice and are governed by state nurse practice acts. A national certification exam must be passed by all NPs. State policies vary, but in 16 states and District of Columbia (DC), nurse practitioners can practice without physician supervision. Other states require some form of collaboration or supervision by a physician, but direct supervision is not required in any state. More than half of NPs in freestanding primary care settings, health maintenance organizations (HMOs), school and college health clinics, and hospital outpatient clinics reported that physicians saw less than 10 percent of their patients. All states allow some form of prescriptive privileges, although several require the prescription to be cosigned or approved by a physician.

Professional associations of NPs advocate for fewer practice restrictions. The American Medical Association and the professional association for several medical specialties have taken the position that NPs ought not be able to practice independently and that physician supervision is an important quality control.

Several studies have concluded that NPs typically give care that is equivalent to that provided by physicians and that they are especially good at caring for patients with chronic health problems. Other studies have found that NPs have better communication, counseling, and interviewing skills (especially helpful with chronic patients), are more likely to be familiar with community resources such as self-help groups, are more likely than physicians to adapt medical regimens to patients' family situation and environment (Mundinger, 1994), and spend more time dealing with psychosocial issues (Campbell et al., 1990).

One study (Mundinger et al., 2000) was based on a randomized trial in which patients were randomly assigned to either a nurse practitioner or a physician and where nurse practitioners had the same authority, responsibilities, productivity, administrative requirements, and patient population as the primary care physicians. No significant differences were found in patient outcomes at either six months or one year. In part due to the extensive amount of personal interaction that occurs, patient acceptance of NPs (and other physician extenders) will likely remain at a high level.

**Certified Nurse-Midwives.** A certified nurse-midwife is a registered nurse who has additional nationally accredited training (usually 18 months to 2 years) in midwifery (all programs are located in a college or university) and who possesses certification by the American College of Nurse-Midwives. A national certification exam must be completed. A CNM degree is typically at the master's level. CNMs receive extensive training in gynecological care, taking histories, doing physical exams, and monitoring care, especially as it relates to pregnancy and childbirth. Restrictive practice acts limit autonomous CNM practice in some states, but all 50 states and the DC provide at least some statutory prescriptive authority for CNMs. Most states now require private health insurers to reimburse nurse-midwives, and all states provide for reimbursement for treating Medicaid patients.

There are just approximately 7,000 certified nurse-midwives who have been certified by the

American College of Nurse-Midwives. Many CNMs are employed by hospitals, physicians, other CNMs, and managed care networks or are in private practice. They are more likely to work in inner-city areas than in any other location. Average annual salary is now more than \$80,000.

After considerable disagreement between lay-midwives and nurse-midwives, and debate over home versus hospital deliveries, nurse-midwifery has experienced significant growth since the 1980s. In 1985, the Institute of Medicine recommended that programs serving high-risk mothers use more certified nurse-midwives and that state laws support nurse-midwifery practice. “In 1986 the Congressional Office of Technology Assessment concluded that CNMs manage routine pregnancies safely, noting that CNMs are more likely than physicians to test for urinary tract infections and diabetes, but less inclined to prescribe drugs; that CNMs are less likely to rely on technology, but communicate and interact more with their patients; and that patients of CNMs spend less time waiting for visits, have shorter hospitalizations and are more likely to feel satisfied with their care” (Rooks, 1990:34). Despite serving mothers who are younger, more likely to be unmarried, more likely to be foreign-born, more likely to be minorities, but less likely to have received prenatal care than the average mother in the United States, midwife-attended births have better-than-average outcomes (Gabay and Wolfe, 1997) and increased satisfaction with care (Sutcliffe et al., 2012). Altogether, CNMs deliver about 10 percent (more than 300,000 babies) of U.S. births each year; worldwide, midwives deliver about 70 percent of all births.

### Certified Registered Nurse Anesthetists.

A CRNA is a registered nurse with an additional two or three years’ training for certification, which provides a master’s degree. They are fully qualified to perform anesthesiology in all 50 states. Nurse anesthetists typically work as licensed independent practitioners.

Federal law requires physician supervision of CRNAs unless a state submits a written letter by the governor to opt out of the requirement

in the best interest of state citizens. To date, 17 states have opted out, and others are considering doing so. Some states such as California and Missouri have passed legislation specifically stating that supervision is not required, but physician associations are seeking to overturn these laws. No state requires supervision specifically by an anesthesiologist. Studies have not detected any harm to patients when CNRAs work without physician supervision (Dulisse and Cromwell, 2010).

CRNAs administer 65 percent of all anesthetics given in the United States and are the sole anesthesiology providers in 85 percent of rural hospitals. There are more than 36,000 certified registered nurse anesthetists in the United States (about 40,000 anesthesiologists); their average salary is about \$160,000.

**Physician Assistants.** Under the direct or indirect supervision of a physician, a PA can perform most of the basic care provided by the physician, including giving physical exams, monitoring and treating minor ailments, counseling, and prescribing some medications. PAs act under laws within their state of practice, but all must pass a national certification exam. The role of PA was created to handle routine patient care tasks so that physicians could spend their time on more complicated patient problems. In addition to primary care physicians, PAs may also assist specialists such as surgeons, anesthesiologists, pathologists, and radiologists.

Applicants for PA programs must have completed at least two years of college (most have a baccalaureate degree) and have a minimum of two years’ experience in the health care field. Programs generally require two years. A national certification exam must be passed before a PA can be licensed.

There are approximately 80,000 PAs licensed to practice in the United States as of the year 2012, and this number is expected to increase significantly in coming years. More than 40 percent work in primary care and half in a specialty area (general surgery and emergency medicine being most common). While nurse practitioners are primarily female, about 38 percent of PAs

There are more than 75,000 physician assistants in the United States. They work under the supervision of a physician but are able to provide most primary care services.



are male. The median salary of PAs in 2010 was about \$90,000.

The professional autonomy of PAs is more limited than that of NPs. Virtually all states and Washington, DC, allow PAs to provide medical services, but only under physician supervision (some states allow PAs to practice with off-site physician supervision). PAs are allowed to prescribe some medications in 48 states and Washington, DC. All government insurance programs and most private insurers pay for PA services.

Research indicates that PAs could handle more than 80 percent of all office visits with minimal physician supervision. Analysts have concluded that they are competent in taking social and medical histories and in performing physical examinations and that quality of care is not decreased when they provide these services. Several studies have found high levels of satisfaction with the care offered by PAs. With the average cost of PA care ranging from one-quarter to one-half that of physicians, there is obvious potential for expanding PA care within the health care system.

### ALLIED HEALTH WORKERS

A majority of the health care workforce is referred to as allied health personnel. Although there is some controversy about this specific

term, it is generally recognized to include a wide variety of nonphysician and nonnursing health care workers. These providers work in all types of care, including primary, acute, tertiary, and chronic and in all settings, including physicians' and dentists' offices, HMOs, laboratories, clinics, ambulance services, home care, and hospitals. Allied health practitioners require varying amounts of education and training, and they work with widely differing degrees of autonomy, dependence on technology, and regulation.

Table 10–3 lists the allied health fields that are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Many of the occupations have several levels of certification so that the prerequisites and length of training vary considerably even within some fields.

Many other health fields have developed around particular technologies or techniques that require specialized knowledge and training. These would include positions related to physical therapy, occupational therapy, radiologic therapy, speech therapy, and the diagnostic imaging fields such as nuclear medicine technology (NMT), magnetic resonance imaging (MRI), computed axial tomography (CAT), and medical laboratory technology. While physicians continue to do some of these procedures themselves, it is more efficient to employ specialized workers. Many of these workers (e.g., nuclear

**TABLE 10–3 Commission on Accreditation of Allied Health Education Programs (CAAHEP) Health Science Fields**

Field
Advanced cardiovascular sonographer
Anesthesia technician/technologist
Anesthesiologist assistant
Cardiovascular technologist
Cytotechnologist
Diagnostic medical sonographer
Emergency medical technician—paramedic
Exercise physiologist
Exercise scientist
Intraoperative neurophysiologic monitoring
Kinesiotherapist
Lactation consultant
Medical assistant
Medical illustrator
Neurodiagnostic technologist
Orthotic and prosthetic practitioner
Perfusionist
Personal fitness trainer
Polysomnographic technologist
Recreational therapist
Specialist in blood bank technology/transfusion medicine
Surgical assistant
Surgical technologist

Source: Data from Commission on Accreditation of Allied Health Education Programs, *Standards and Guidelines*, 2013, Clearwater, FL. [www.caahep.org](http://www.caahep.org).

medicine technologists) perform diagnostic tests, which are then interpreted by physicians.

## THE HEALTH CARE TEAM

### The Concept of a Health Care Team

During the last several decades, the **health care team** approach has become commonplace in health care institutions. In reality, the concept of “team” is used in many different ways: (1) to describe a group of highly competent technical specialists, subspecialists, and supporting personnel who join together to execute some dramatic, intense, and usually short-term activity (e.g., a neurosurgery team); (2) to refer to the cooperation of technically oriented providers (e.g., physician specialists) with socially and/or behaviorally oriented providers (e.g., social workers); and (3) to simply refer to a less hierarchical and more egalitarian mode of health care organization and decision making (especially among physician and nonphysician providers).

The primary objectives of team care over traditional care are to avoid duplication and fragmentation of services and develop better and more comprehensive health plans by including more perspectives. Ideally, this occurs through



Nuclear medicine is one of several high-technology imaging fields that offer enhanced diagnostic abilities. This patient is working with a cardiac nuclear technologist.

In many health care settings, a “team” of health care professionals works together to offer comprehensive care. “Medical homes” that are structured around physician-led teams are becoming increasingly popular.



a group process involving cooperation and coordination. Research has documented that the existence of a “teamwork culture” in a hospital is related to greater feelings of patient satisfaction (Meterko, Mohr, and Young, 2004).

### Perceptions of the Team Approach

While enthusiasm for the team approach remains high among many health care workers and among many patients, some recent reexamination of the concept has occurred. Recent studies have shown that the approach is viewed differently among types of providers. For example, Temkin-Greener conducted interviews with 12 senior faculty who were department heads in a large medical center and teaching hospital to explore ways in which leaders in nursing and medicine understand and define the team concept, its purposes, and its goals. She found that the physicians and nurses differed on their views of health care teams. Physicians often viewed teamwork as “a nursing concept, beneficial primarily to nursing and used to ‘usurp’ the traditional authority of medicine in health care provision” (1983:647), while the nurses imputed considerable value to the team approach but believed medicine to be closed to the concept unless it was imposed from outside (e.g., by the Joint Commission for Accreditation

of Hospitals). Temkin-Greener interprets these divergent attitudes as evidence of two different cultures, one in which medicine “emphasizes the status quo of its traditional authority and inherently hierarchical mode of organization and function” and one in which nursing “stresses a more egalitarian vision of power relations with collaboration and peer cooperation as prerequisites for team care provision” (p. 647). These varying perceptions indicate that the team approach is still evolving and has certain difficulties to resolve. However, it is expected to remain a part of health care delivery.

### The “Medical Home”

An approach to providing comprehensive medical care that has recently become quite popular is the **medical home** or the patient-centered medical home. A medical home is a physician-led team that includes nurses, nurse practitioners, physician assistants, health educators, and others working together to provide comprehensive primary care. The model aims to provide better-coordinated care that is more family centered and accessible. Ideally, patients would receive more time with team members than they currently do with just a primary care physician, and interaction could focus on prevention and education as well as diagnosis and treatment.

Since being proposed by a variety of professional physician groups, the popularity of medical homes has grown rapidly. Early assessment of clinical outcomes, costs, and patient satisfaction is very favorable. The Affordable Care Act provides funding for pilot programs of several types of medical home configurations. With the current shortage of primary care physicians, the medical home may have added utility.

## RELATIONSHIPS AMONG HEALTH CARE WORKERS

The delivery of health care services involves an extensive and interdependent network of personnel. Each position carries with it certain expectations for the practitioners themselves as well as for those with whom they interact. Furthermore, these positions are arranged in a hierarchy of status based on prestige and power. These occupational expectations and status arrangements significantly affect the dynamics of interaction among personnel throughout health care. The following section examines the relationship among physicians and the nonphysician practitioners discussed earlier in this chapter.

### The Relationship Among Physicians and Nurses

Of all the interactions among health care workers, the relationship between the nurse and the physician has received the most attention (Gordon, 2005). To better understand this relationship historically, Keddy and colleagues (1986) interviewed 34 older nurses who had worked and/or trained in the 1920s and 1930s about their interactions with physicians. They recalled that 50 years ago, physicians were primarily in control of nursing education, giving many of the lectures and examinations, serving on registration boards, and controlling the hiring of nurses. The role of the nurse was defined in terms of efficient compliance with the physician's orders rather than patient care responsibilities. Early in training, student nurses were taught the hierarchy of the hospital personnel

and proper conduct in the presence of physicians. They were expected to show respect to physicians by standing at attention when physicians were present, and they were taught never to make direct recommendations regarding patient care and never to suggest diagnoses to the physician. Although nurses had ideas, they did not voice them. For carrying out this role, these nurses believed that the doctors admired and respected them. One interviewee recalled, "The physician signs and he'd write this long order, and then he'd look at you over his glasses and say 'Now it's up to you whether she gets better or not.' They didn't all say it, but . . . it was implied" (Keddy et al., 1986:749).

Dynamics such as these persisted, and in 1967, Leonard Stein coined the phrase "the doctor–nurse game" to describe these relationships. According to this game, physicians and nurses agree that their relationship is hierarchical, that physicians are superordinate, and that this structure must be maintained. While nurses can make recommendations to physicians, the suggestions must appear to be initiated by the physician, and open disagreements are to be avoided at all costs.

In 1990, Stein and two colleagues revisited the doctor–nurse game in an article in the *New England Journal of Medicine*. They described a changing milieu that encouraged a new type of physician–nurse relationship. Changes that had occurred included deterioration in public esteem for physicians, increased questioning of the profession's devotion to altruistic concerns, and a greater recognition of physicians' fallibility. By 1990, physicians were increasingly likely to be female, and although female medical graduates are trained to play the same game as their male counterparts, "the elements of the game that reflect stereotypical roles of male dominance and female submissiveness are missing" (p. 546). The critical nursing shortage at the time also restructured nurse–physician interaction by focusing attention on the value of nurses, especially as they became more highly trained and specialized. They perceived the possibility that a feeling of collegiality between the two might replace the typical

hierarchical relationship between superior and subordinate.

For all these reasons, and partly in response to the women's movement, nurses now seek greater equality with physicians as well as autonomy in defining their own roles. In addition, nursing education, increasingly located in academic settings, is socializing nursing students to relate to physicians very differently than they did in the past. Most nurses are no longer willing to stand aside as subordinates. This has provoked a mixed reaction among physicians—while some physicians are supportive of nurses' attempts to become more professional and autonomous, others believe that nurses are no longer doing their jobs.

The "Revisited" piece aroused considerable discussion in the editorial section of the *New England Journal of Medicine* (July 19, 1990). Much resistance was expressed by physicians who tended to defend an ongoing status differential between themselves and nurses. The letter writers stated that nurses are not equal partners with physicians because they are less well educated and less technically proficient, and they are not autonomous because they lack ultimate responsibility for patient treatment.

Two nurses responded that as physicians' control over medical practice shrinks, physicians "are beginning to appreciate what it is like to provide care for patients when one has little or no control over one's work" (Lewis, 1990:201) and that nurses are still unappreciated for what they offer to health care.

Campbell-Heider and Pollock caution that nurses' expectations that their status will be enhanced through increased knowledge and skills fail to consider the deeply rooted gender hierarchy in medical care: "It is clear that the social control of nurses (and women) has enabled physicians to increase their own status and that the maintenance of female stereotypes has increased the power differentials between gender groups" (1987:423).

One of the most extensive studies regarding the dynamics within the physician–nurse relationship was conducted by Prescott and Bowen (1985). Contrary to a number of studies

documenting significant problems in the relationship between nurses and physicians, they found considerable satisfaction among both groups, although they differed in their descriptions of the elements of a good relationship and in the factors that contribute to positive relationships.

Sixty-nine percent of nurses and 70 percent of physicians described their relationships as essentially positive. Nurses emphasized mutual respect and trust as the most important elements of a good relationship and considered it important that physicians regard them as intelligent resources who should be involved in the planning and decision making related to patient care. For physicians, the most important elements of a good relationship with nurses were how well the nurse communicated with the physician, the nurse's willingness to help the physician, and the nurse's competency.

Areas of disagreement between physicians and nurses were also examined. Nurses disagreed most often with physicians concerning general plan of care, specific orders, and patient movement (from unit to unit and timing of discharge). On the other hand, physicians were concerned about nurses' taking actions they considered outside the nursing domain, making poor clinical decisions, and not following specific physician orders. Approximately half of the physicians and a third of the nurses reported that disagreements were handled in the organization through the medical chain of command, but final authority almost always rested with the physician.

More recently, McGrail et al. (2009) studied episodes of physician–nurse collaboration by having physicians, nurses, nurse faculty, and medical residents write narratives about successful collaborations that they had experienced. The themes that they identified and the affective component of the collaboration was not affected by gender, ethnicity, or profession. Physicians and nurses, especially novice members of both fields, wrote that they often entered a care episode feeling worried, inadequate, or uncertain, but that the interaction led to feelings of satisfaction, being understood, and appreciation for their colleagues. One theme that emerged from the narratives was the importance of "collaborative

competence”—skills in interacting with and relating to others in a collaborative episode. That suggests that the kinds of orientations and demeanors that have been off-putting in physician–nurse collaboration might be at least somewhat amenable to education and training.

Despite the benefits of meaningful collaboration among physicians and nurses, Leape and others (2012) are skeptical that things will really change until the underlying problem is addressed. They describe a too-often dysfunctional medical culture in which there is widespread disrespectful conduct of physicians toward nurses, residents, and students. They see this culture being caused by and reflected in physicians’ belief in individual privilege and their own autonomy. This disrespectful organizational culture sometimes exists despite its negative effect on patient care. It may impair open communication with nurses and with other members of the care team, and it may create distance from patients. It may help explain resistance to following safety protocols. Lack of respect certainly undermines morale and prevents collegial and collaborative patient care (Leape, et al., 2012).

### The Relationship Among Physicians and Mid-Level Practitioners

There are many situations in which physicians and mid-level practitioners work cooperatively and with mutual respect. There are also many situations in which the interests and goals of the groups differ and conflict prevails. In general, physicians are most comfortable with practitioners who clearly supplement their own work and who are restricted from practicing without physician supervision. For this reason, physicians have had the most amicable relations with physician assistants (who typically work for physicians and under their supervision), certified registered nurse anesthetists (as long as they work under and are paid by anesthesiologists), and certified nurse-midwives (as long as they work for and are paid by hospitals or an obstetrician—as most are). There is more tension in the relationship with nurse practitioners (who are sometimes seen as more of a

competitor for patients seeking primary care) and with CRNAs and CNMs who work independently and are reimbursed directly.

The most heated point of contention today is the extent to which APRNs should be able to practice independently. For years nurse practitioners have been playing a larger and larger role in the health care system. In recent years, many states have considered and passed legislation to enable NPs to take on an even larger share of primary care responsibility. Nurses’ associations contend that the two to four years of training beyond the nurses’ degree should qualify APRNs to serve as primary care providers without physician supervision. In addition, the associations believe that, where necessary, state laws should be changed to enable APRNs to receive direct reimbursement from public and private insurance programs and to have extensive—if not complete—legal authority to write prescriptions.

The AMA vehemently opposes these changes. The AMA contends that the additional training required of physicians makes them the most effective providers of health care services and the only group sufficiently knowledgeable about pharmacology to have full prescription writing authority. An AMA report issued in late 1993 stated, “Substitution for, rather than extension of, physician care by nonphysicians raises questions of patient safety, competence of therapeutic decision, fragmentation of care and delays to patients in need of medical care” (Burda, 1993:6).

Several studies have documented communication problems between physicians and mid-level practitioners. An intriguing study by Susan B. Graham (1991), an anthropologist and physician, analyzed interaction patterns of physicians and midwives working in an obstetrical training program at a major medical center. Midwives were added to the Department of Obstetrics and Gynecology at the center to help provide additional coverage for an increased workload. All the 20 midwives were CNMs, and all the physicians were residents in Obstetrics/Gynecology.

The CNMs were to provide prenatal care to low-risk patients and do normal vaginal deliveries of those patients. Residents would have responsibility for high-risk patients and difficult

labors and deliveries. The faculty and administration envisioned two separate but equal services, and they expected little friction between the two groups of providers. In fact, what emerged were competing and often conflicting systems that potentially jeopardized patient care.

Because 70 percent of the residents and all the CNMs were female, Graham concluded that differences between the two groups could not be attributed to gender. Instead, the primary problems were the absence of a formally articulated structure for interaction and differing perceptions concerning group status. The CNMs saw themselves as professionals who had already completed their training and had acquired many years of experience; they regarded residents as inexperienced apprentices.

On the other hand, residents regarded themselves as “doctors” and the midwives as “nurses,” stressing their own extended training, abilities

to do procedures that the CNMs could not, and longer working hours. Differing treatment philosophies also contributed to the problem. The midwives considered their emphasis on the individual and the use of noninterventionism to be superior to what they regarded as the impersonal, interventionist philosophy of the residents.

### THE CHANGING ENVIRONMENT AMONG HEALTH CARE WORKERS

Relationships among physicians, nurses, mid-level practitioners, and allied health personnel must be viewed as a constantly evolving and dynamic process. This process is governed not only by factors internal to each field—such as changing education requirements and a search for autonomy—but also by changes in the wider health care system (such as managed care), the economy, and society (Hartley, 1999).

### SUMMARY

The numbers and types of health care workers in the United States have changed significantly in the past 200 years. With these changes has come a complex bureaucracy to regulate and control millions of providers working in numerous health care settings.

The field of nursing is undergoing significant change. No longer content to be silent and obedient assistants to physicians, nurses have sought to professionalize the field through increased educational requirements and greater assertiveness. While nursing does not offer genuine autonomy—an important prerequisite for a profession—the field does have much in common with professions. There is now general acknowledgment that nurses have become more centrally involved in the direct provision of health care.

Several important mid-level practitioners—nurse practitioners, physician assistants, certified

nurse-midwives, and certified registered nurse anesthetists—now occupy an important niche in the health care system. While their ability to practice independent of physician supervision varies, all perform services once provided by physicians and at lower cost. Research confirms that these practitioners offer high-quality services with which patients are satisfied. Relationships with physicians vary, but physicians’ attitudes are more positive when the mid-level provider has less autonomy.

Extremely important scientific developments during the 1920s, 1930s, and 1940s led to the development of a wide variety of allied health positions that have become essential parts of the overall health care system. These personnel perform diagnostic work that is interpreted by physicians, and they provide certain therapeutic modalities and types of rehabilitative care.

### HEALTH ON THE INTERNET

The National Institute of Nursing Research (NINR) is the home base of nursing research within the National Institutes of Health

(NIH)—the medical research center of the federal government. The NINR Web site contains a wealth of information on nursing, including

nursing case studies and other trends and issues related to nursing. A particularly fascinating document prepared by NINR is, “Changing Practice, Changing Lives: 10 Landmark Nursing Research Studies.” You can access this document at: <http://www.ninr.nih.gov/NewsandInformation/NINRPublications/> and then scrolling down until you reach this document. Click on it. Look

through these ten studies and answer the following two sets of questions about them: (1) What is the focus of each study? Is it on national or state policy or nursing practice? Who might benefit from this knowledge? (2) What research methods were used? Was a survey conducted? Or an experiment? Observational research? Analysis of existing data?

## DISCUSSION QUESTION

As described in this chapter, some groups of health care workers (most often nurses and allied health workers) have unionized. Ostensibly, the unions will help provide a bargaining force for increased salaries and benefits, job security, and to gain a greater say in management decisions. Unions derive much of their power from the willingness of members to go on strike if they feel they have not been treated fairly by management.

The largest and most powerful health care union is the Service Employees International Union (SEIU); it has over 2 million health care workers in its membership and is very active in California (with more than 150,000 members), the site of the nation’s most active health care labor organizing. However, two other unions, the National Union of Healthcare Workers (NUHC) (8,000 California members) and the California Nurses Association (CNA) (85,000 California members) are also actively trying to sign up health care workers with a platform that calls for more aggressive bargaining. (The two unions merged in 2013.) Both advocate the use of strikes when other bargaining techniques fail, and there have been short strikes among health care workers in the last few years.

Suppose you heard that all the hospital-based nurses in your community had presented a list of grievances (lower-than-average salaries, inadequate benefits, little workplace autonomy, reduction in staff, and patient care being compromised) to the administrative officers of the hospitals who have refused to consider them. In response, efforts are under way to form a nurses’ union to establish stronger bargaining power. The nurses have indicated that they will consider a general strike if their requests (demands?) are not met.

Should health care workers have the same rights as other workers to unionize and, if they deem it to be necessary, to go on strike? Are health care occupations qualitatively “different” than other occupations because of their role in working in life-and-death situations? If nurses cannot unionize and strike, what options do they have in bargaining for better job conditions?

Is your position the same or different regarding the right of physicians to unionize, to collectively bargain, and if deemed necessary, to strike? What are the conditions, if any, in which you think that a physician strike would be justifiable?

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# CHAPTER 11

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## *Complementary and Alternative Medicine*

### Learning Objectives

- Define “complementary and alternative medicine,” and identify and describe the key characteristics that CAM have in common.
- Discuss the extent to which CAM has become institutionalized in the United States.
- Compare and contrast the origins and historical development of the four CAM approaches examined in this chapter.
- Compare and contrast the relationship with organized medicine of the four CAM approaches examined in this chapter.

Through much of the twentieth century, the scientific medicine paradigm (as described in Chapter 2) was so dominant in the United States that it was referred to as *orthodox* or *conventional* medicine. While alternatives to medical doctors—everything from home remedies to prayer to chiropractors—were frequently used, they were considered to be unorthodox or unconventional medicine. Scientific medicine has been taught almost exclusively in health courses in schools, has been the subject of public health campaigns, and has been the dominant perspective in the medical school curriculum.

### THE MEANING OF COMPLEMENTARY AND ALTERNATIVE MEDICINE

Because scientific medicine has been given this societal endorsement, it is rather remarkable that **complementary and alternative medicine (CAM)**—“an array of health care approaches with a history of use or origins outside of mainstream medicine” (National Center for Complementary and Alternative Medicine,

2013:1) has flourished and is today more popular than ever before. The National Center for Complementary and Alternative Medicine (2013) categorizes CAM into:

1. Natural products including herbs, vitamins and minerals, and probiotics [foods or supplements that contain living microorganisms (such as yogurt) that can change the bacterial balance in the human body].
2. Mind and body practices including acupuncture, massage therapy, meditation, movement therapies, relaxation techniques, spinal manipulation, and yoga.

Some important practices such as traditional Chinese healing, folk healing, homeopathy, and naturopathy are in addition to those identified in these two categories.

Goldstein (1999) has extracted five core elements from this wide variety of CAM healing practices:

1. **Holism.** This practice involves treating the patient holistically, that is, considering the entire physical, mental, spiritual, and social



## IN THE FIELD

### A SHORT HISTORY OF MEDICINE

“Doctor, I have an earache.”	A.D. 1940	“That potion is snake oil, swallow this pill.”
2000 B.C. “Here, eat this root.”		
1000 B.C. “That root is heathen, say this prayer.”	A.D. 1985	“That pill is ineffective, take this antibiotic.”
A.D. 1850 “That prayer is superstition, drink this potion.”	A.D. 2000	“That antibiotic is artificial. Here, eat this root.”

makeup of the patient in diagnosing illness and providing therapeutic care.

- The interpenetration of mind, body, and spirit.*** While most physicians today recognize the importance of the mind–body connection, CAM places great emphasis on their relationship and generally never treats one without the other.
- The possibility of high-level wellness.*** Health is viewed as being a very positive physical–emotional state and not just as the absence of symptoms or clinical disease.
- Vitalism: life suffused by the flow of energy.*** Life is viewed as a type of ecosystem in which the various elements of mind, body, and spirit are united by a force or flow of energy throughout the body.

An amusing overview of the evolution of CAM is provided in the accompanying box, “A Short History of Medicine.”

- The healing process.*** In most forms of CAM, unlike much of conventional medicine, healing is viewed as a cooperative, active process that involves both healer and patient. The healer is a caring and nurturant individual who works “with” instead of “on” patients.

Given the disdain that organized medicine has historically had for CAM (and in many cases the disdain that CAM has had for scientific medicine), the popularity of the alternatives makes an important statement about many people’s understanding of health and healing. In fact, Goldner (1999) argues that one of the reasons that many patients choose a CAM technique is

precisely because they feel alienated from the impersonality of conventional medicine, and they prefer a more holistic approach.

## SCIENTIFIC MEDICINE AND ALTERNATIVE HEALING

### Orthodox Medicine’s View of Alternative Healers

Historically, physicians justified their opposition to alternative healing practices in two ways. First, many medical doctors have considered any form of “nonscientific” healing to be quackery—a medically worthless practice—or a danger to public health (if a harmful substance is administered or if people delay seeking conventional care). Their criticism of CAM was viewed as being part of a duty to protect the public’s health. Physician-critics acknowledge that some alternative healers make a professional appearance and appear to base their practice on well-articulated (though nonscientific) principles. But, by virtue of offering a healing practice that has not undergone rigorous scientific testing, they are viewed as deluding the public and risking people’s health (Angell and Kassirer, 1998).

Second, physicians have expressed concern that some people are fooled into believing the claims of alternative healers. Whether it is due to effective advertising or to appeals made to people who have not been helped by orthodox medicine, users of CAM have sometimes been seen as being unable to distinguish

between legitimate and illegitimate medical care (Beyerstein, 2001).

An alternative view suggests that organized medicine's opposition to alternative healers has been based on perceived self-interest. By persuading the public (and politicians) that it is the only legitimate healing practice, scientific medicine's cultural authority (as described in Chapter 2) is protected. This in turn restricts competition for patients and for private and public money spent on health care. How has this been done?

One way to do so was through an educational campaign, using the vast public relations resources of the AMA and other organizations to expose the dangers and errors of these cults. Another approach was to employ political leverage and legal muscle. Organized medicine excluded from its ranks those who espoused such systems; denied such practitioners the privilege of consultation; refused to see patients when such healers were assisting in the case; prevented such practitioners from working in or otherwise using public hospitals; went to court to prosecute them for violating existing medical practice acts; and actively opposed legislative protection for them or, when that failed, opposed allowing them any additional privileges. (Gevitz, 1988:16–17)

## CAM's View of Conventional Healers

Practitioners and proponents of complementary and alternative healing practices view their work in a completely different way. Many have argued that their goal is the same as that of conventional medicine: to offer effective healing therapies. Their belief is that orthodox medicine has helped some people but has failed to help many others and, in fact, often harms them (e.g., negative drug reactions or drug dependency).

CAM healers contend that the many people who have been helped by their practices, the high levels of satisfaction in their patients, and the high percentage of people who see them on a continuing basis testify to the efficacy of their treatments. They believe patients should have an unencumbered right to choose their healing practice from a variety of options, just as they have a right to choose their religion. If a particular type of healing practice is worthless, patients will soon discover that, and the demand for that service will diminish. Alternative healers have often asked for the right to practice without attack from organized medicine. See the box, "The Ability of Teenagers to Choose a CAM."



### IN THE FIELD

#### *THE ABILITY OF TEENAGERS TO CHOOSE A CAM*

In 2005, a 15-year-old Virginia teenager, Abraham Cherrix, underwent three months of chemotherapy for Hodgkin's disease, a type of cancer. The treatment left him so weak and so nauseated that at times he had to be carried by his father because he couldn't walk. In February 2006, when he learned that the cancer had become active once again, he refused to undergo another round of chemotherapy and radiation. He said that he did not think that he could live through it. Hodgkin's is generally considered a treatable condition and has a five-year survival rate of about 80 percent. However, with the reoccurrence, Abraham's survival possibility was estimated at 50 percent.

Instead, after doing significant reading, he chose a sugar-free organic diet that included

lots of fruits and vegetables, herbs, and visits to a clinic in Mexico. This raised the issue of the age at which an individual is able to make lawful decisions for himself or herself. His parents supported him in his choice, saying that they believed he is a mature and thoughtful young man. In May, a judge issued a temporary order finding Abraham's parents neglectful for supporting his choice. They were ordered to give partial custody of Abraham to the County Department of Social Services, so that they could have the chemotherapy and radiation continued. The parents were told that if they refused to comply that they would lose all custody of Abraham.

In August 2006, a Circuit Court judge cleared the family of all charges of medical neglect and allowed them to follow their treatment course

of choice as long as Abraham would be periodically examined by a specific board-certified oncologist in Mississippi who is experienced in alternative cancer treatments. This resolution was acceptable to Abraham and his parents. On his 18th birthday in 2008, Abraham

was doing well, but the Hodgkin's returned in 2009. In the succeeding years, Abraham has had recurrent bouts of Hodgkin's separated by times in which he has felt well. At last report, Abraham was being treated with infrared saunas, herbs, and nutritional supplements.



The case of Abraham Cherrix—shown here—raised the important question about whether mature individuals under the age of consent may choose to follow CAM rather than conventional medicine.

## COMPLEMENTARY AND ALTERNATIVE HEALERS

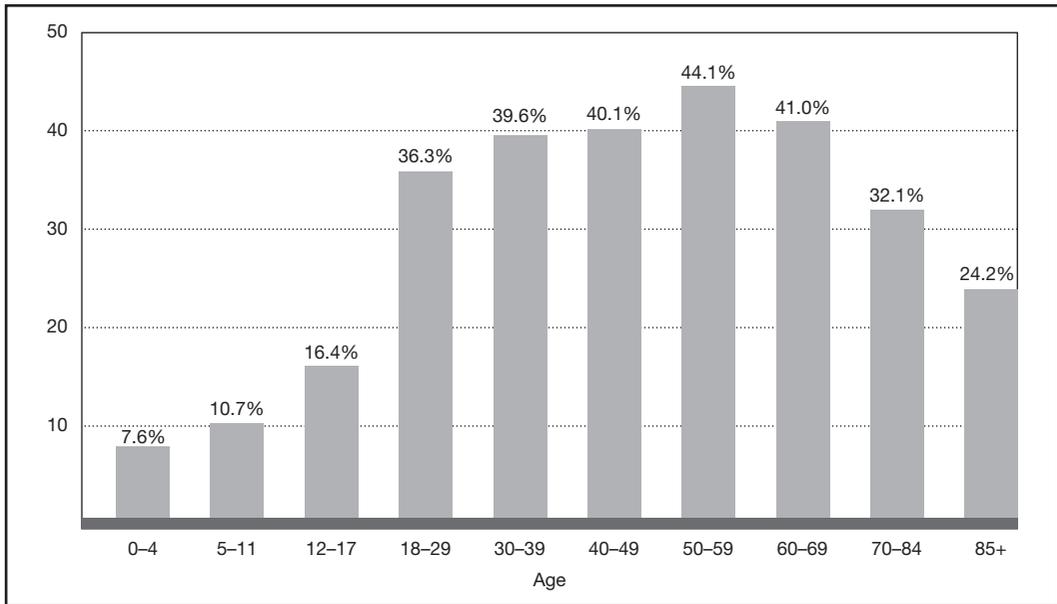
### Use of Complementary and Alternative Healers

It is now recognized that millions of people use complementary and alternative healers every year. About half of American adults use at least one form of alternative medicine, and 10 percent use it on their children. Annually, Americans pay more visits to CAM healers than to primary care physicians. When Oxford Health Plans included use of CAM in its benefit package, between 40 and 50 percent of members saw a CAM provider in the first year (Kilgore, 1998). Many health maintenance organizations around the country have now begun including coverage for CAM. CAM has become a \$34 billion a year industry.

Use of CAM is common by both men and women (females slightly more likely), by both blacks and whites (whites somewhat more likely), among people of all ages (with especially high use among middle-aged persons), among people at all levels of education (with use highest among the most well educated), and in all socioeconomic groups (with use highest among those with the most income) (Barnes, Bloom, and Nahin, 2008; Grzywacz et al., 2007). Research has also shown that many people who cannot financially access the health care system often turn to CAM because it is more affordable (Pagan and Pauly, 2005). Figures 11–1 and 11–2 report additional patterns of use of CAM services in the United States.

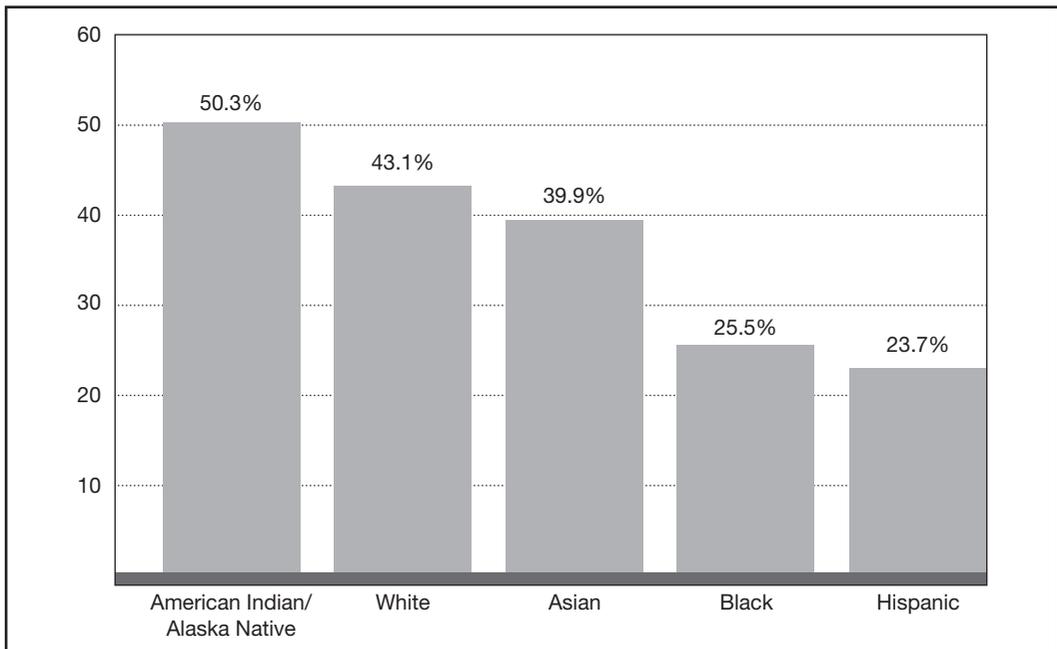
The most common problems for which CAM therapies are used are back pain, neck pain, and

**Figure 11–1** CAM Use by Age, 2007



Source: Patricia M. Barnes, Barbara Bloom, and Richard L. Nahin, “Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007,” *National Health Statistics Report*, Number 12 (Hyattsville, MD: National Center for Health Statistics, 2008).

**Figure 11–2** CAM Use by Race/Ethnicity Among Adults, 2007



Source: Patricia M. Barnes, Barbara Bloom, and Richard L. Nahin, “Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007.” *National Health Statistics Report*, Number 12 (Hyattsville, MD: National Center for Health Statistics, 2008).

joint pain. Table 11–1 identifies the ten most frequently cited reasons for using a CAM practitioner. The most commonly used CAM therapies are reported in Table 11–2, and the most commonly used natural products are found in Table 11–3.

**The Dual Model of Care**

Are all or most of the people who use CAM completely dissatisfied with conventional medical care? No. Researchers have discovered that many people follow a “dual model of medical care,” making use of an alternative healer at the same time as they receive care from a medical doctor.

While some people have become disillusioned with conventional care and have made a cognitive commitment to complementary and alternative practices, the more common pattern is that individuals use different healers for different problems. For example, many patients consult with chiropractors about chronic low back pain but continue to rely on medical doctors for other problems. Their selection of a healer is made on very pragmatic grounds: They continue to see medical doctors for most ailments because that has been helpful in the past, but

**TABLE 11–2 Ten Most Common CAM Therapies Used by Adults, 2007**

Therapy	Used in the Last Year (%)
Natural products	17.7
Deep breathing	12.7
Meditation	9.4
Chiropractic/Osteopathic	8.6
Massage	8.3
Yoga	6.1
Diet-based therapies	3.6
Progressive relaxation	2.9
Guided imagery	2.2
Homeopathic treatment	1.8

Source: Patricia M. Barnes, Barbara Bloom, and Richard L. Nahin, “Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007,” *National Health Statistics Report*, Number 12 (Hyattsville, MD: National Center for Health Statistics, 2008).

if their back pain has received little relief from the family doctor, they will seek relief from a chiropractor. If that works, they will maintain allegiance to both practitioners—each in a specified domain (Kelner and Wellman, 1997; Kronenfeld and Wasner, 1982). In a 1985 study of asthma patients using an alternative healer,

**TABLE 11–1 Ten Most Common Reasons for Adults to See a CAM Practitioner**

Condition	Used Alternative Healer in the Last Year (%)
Back pain	17.1
Neck pain	5.9
Joint pain	5.2
Arthritis	3.5
Anxiety	2.8
Cholesterol	2.1
Head or chest cold	2.0
Other musculoskeletal pain	1.8
Severe headache/Migraine	1.6
Insomnia	1.4

Source: Patricia M. Barnes, Barbara Bloom, and Richard L. Nahin, “Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007,” *National Health Statistics Report*, Number 12 (Hyattsville, MD: National Center for Health Statistics, 2008).

**TABLE 11–3 Ten Most Common Natural Products Used by Adults, 2007**

Therapy	Used in the Last Year (Of Those Using a Natural Product) (%)
Fish oil/Omega 3	37.4
Glucosamine	19.9
Echinacea	19.8
Flaxseed oil pills	15.9
Ginseng	14.1
Combination herb pills	13.0
Ginkgo biloba	11.3
Chondroitin	11.2
Garlic supplements	11.0
Coenzyme Q-10	8.7

Source: Patricia M. Barnes, Barbara Bloom, and Richard L. Nahin, “Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007,” *National Health Statistics Report*, Number 12 (Hyattsville, MD: National Center for Health Statistics, 2008).

more than three-fourths reported that they were satisfied with *both* their medical doctor and the alternative healer (Donnelly, Spykerboer, and Thong, 1985). However, several studies have discovered that most persons who follow the dual model of care do not inform their medical doctor that they are also seeing a CAM healer, even if it is for the same complaint. One survey found that almost three-fourths of Americans age 50 and older have not talked to physicians about nontraditional treatments being received (National Center for Complementary and Alternative Medicine, 2013).

### The Efficacy of Complementary and Alternative Healers

Is this information a valid and reliable indication that at least some CAM healers offer efficacious treatment? Possibly, but not necessarily. Determining the efficacy of any medical treatment, conventional or unconventional, is more complicated than it might seem at first. Rodney Coe (1970) identified three reasons why the use of magic in primitive medicine is (or seems to be) effective. These reasons can be generalized to any form of medical treatment whatever the level of scientific sophistication in the society.

First, in all societies, most patients most of the time will recover regardless of the form of treatment received or even whether any treatment is provided. The amazing recuperative powers of the human body are only now being recognized. The same point is made by the old adage about seeing a physician for a cold: If you do, you'll be well in a week; if you don't, it will take seven days. Thus, whether one receives muscle relaxants from a medical doctor or spinal manipulation from a chiropractor, one's back pain will usually diminish eventually. Typically, we give credit to whatever treatment was received, although we would often have healed without treatment.

Second, when patients believe strongly in the medical care they receive, it has great psychotherapeutic value, whatever its direct effects. The determination to get well and the confidence that recovery will occur are relevant factors in the

healing process. Believing in the cure offered by your family physician can contribute to its success, just as believing in the efficacy of being needled by an acupuncturist or sharing prayer with a Christian Science practitioner can.

Finally, some medical practices are empirically correct, even though there is not a clear explanation. Coe uses the example of a medicine man treating a snakebite victim. He might open the wound further and suck out the evil spirit that had entered. In so doing, he is actually sucking out the poisonous venom from the wound, thus accomplishing what orthodox medicine would recommend but basing it on an entirely different underlying theory.

Furthermore, every medical treatment must be considered within the context of the practitioner–patient relationship. It is now well recognized that the quality of this relationship may influence the course of treatment and the healing process.

Treatments offered by alternative healers are often enhanced by the greater rapport they develop with patients. Alternative healers are often more sympathetic than medical doctors to minor but nagging conditions that can trouble an individual. Most of the alternative healing practices involve more talking and more touching, both tremendously reassuring processes, than are often involved in treatment by the medical doctor. Alternative healers are also viewed as giving more time (more than four times as much time as M.D.s give per patient); doing a better job of avoiding medical jargon; and providing warmer, more relaxed treatment settings. One study found that individuals who use CAM are more likely than those who do not to report their own health as being excellent and their health to have improved in the last year (although the study was not done in such a way as to determine causality) (Nguyen et al., 2011).

All this is not to say that we do not make individual judgments about the efficacy of medical care received. We do. And it is not to say that patterns of efficacy cannot be studied. They can. But it is to say that drawing firm conclusions about the efficacy of any form of medical care must be done very carefully.

## Mainstream Interest in Complementary and Alternative Healing Practices

In recent years, interest in complementary and alternative healing practices has increased among policy makers. In 1992, the U.S. Senate established the Office of Alternative Medicine (OAM) within the National Institutes of Health to evaluate the effectiveness of unconventional medical practices. Now called the National Center for Complementary and Alternative Medicine (NCCAM), the first-year budget of \$2 million has grown more than 60-fold to over \$128 million in 2012. Much of the money has been allocated to research projects on various practices and to public education.

Many medical schools have started or are developing courses on alternative therapies—more than three-fourths of medical schools in the United States now offer at least one CAM course. Many hospitals now offer selected CAM techniques such as massage therapy and acupuncture. Health insurance policies now routinely cover care from at least some types of alternative healers, and Washington has become the first state to pass an “any-willing-provider” law that requires insurers to cover the services of every licensed or certified health care provider in the state.

The general attitude of medical doctors toward CAM practices has certainly softened. While some remain skeptical of approaches that have not undergone rigorous scientific testing, many physicians now accept the value of at least some of the practices and routinely refer patients who they are unable to help to CAM practitioners. Efforts are also underway to better disseminate to physicians the results of clinical trials of CAM healing practices (Tilburt et al., 2009).

In this chapter, we examine four CAM practices: chiropractic, acupuncture, religious healing (particularly Christian Science), and ethnic folk healing (curanderismos and Navajo healers).

### CHIROPRACTIC

The field of **chiropractic** contains many contradictions. Millions of people in the United States enthusiastically support chiropractic, while

many continue to see it as nothing more than successful quackery. (A former president of the American Chiropractic Association was fond of saying, “People either swear by us or at us.”) Without altering its basic philosophy or practice, it has achieved increased acceptance by many M.D.s, yet is condemned by others. There is even dissensus among chiropractors themselves as to the appropriate boundaries of the field.

Nevertheless, certain facts are clear. Chiropractic is a licensed health profession in all 50 states, and chiropractors are recognized and reimbursed by federal, state, and most commercial insurance companies. There are more than 60,000 licensed doctors of chiropractic in the United States, and an estimated 20 million people are treated by chiropractors each year. It represents an important component of the health care system.

### Origin

The field of chiropractic was founded by Canadian-born Daniel David Palmer (1845–1913), a healer living in Davenport, Iowa. Palmer credited his vision of the field to two successful experiences he had in 1895: By realigning displaced vertebrae, he restored hearing to one man who had become deaf 17 years earlier when something had “given way” in his back and he relieved another patient’s heart problems. He reasoned that if two such disparate conditions could be treated through manipulation of the vertebrae, potential existed for curing all ailments in this fashion. His research findings, published in 1910, served as the foundation for this new healing practice and the basis for a chiropractic school, which he established in 1897 (Wardwell, 1992).

### Basic Principles

The National Center for Complementary and Alternative Medicine (2010b) identifies the three basic tenets of chiropractic:

1. The body has a powerful self-healing ability. Illness results from a failure to maintain homeostasis—the positive bodily drive

toward health. Maintenance of homeostasis occurs through good nutrition, good posture, exercise, stress management, creative meditation, and natural (nonpharmacological) healing. Serious disease is viewed as the end result of a process that could have been avoided through this holistic approach.

2. The body's structure (primarily that of the spine) and its function are closely related, and this relationship affects health. Vital energy flows throughout the body's nerves during a homeostatic state. However, this energy can be blocked by subtle malalignments of the vertebrae called subluxations. These subluxations are the origin of most human illness.
3. Therapy aims to normalize this relationship between structure and function and assists the body as it heals. By correcting the



Chiropractors believe that health problems are expressions of underlying problems including blockages of the flow of vital energy caused by malalignments of the vertebrae.

spinal malfunction, the chiropractor expects the specific problem to disappear and the patient's general health to improve.

Caplan (1984) explicates the three main ways that this philosophy of healing contrasts with orthodox medicine:

1. Medical doctors typically equate symptoms with particular diseases and identify health as the absence of symptoms. Disease is discovered when symptoms appear and is usually judged to have ended when the symptoms disappear. Chiropractic does not make this equation. A body is assumed to be diseased for some period of time before symptoms appear. Rather than focusing on symptoms, chiropractors focus on the subluxation.
2. Orthodox medicine considers germs to be the underlying cause of many disorders. The medical profession considers this to have been scientifically proven and disdains any healing philosophy that does not subscribe to it. The task of the physician is to diagnose what germs are present and offer treatment to reduce their presence in order to restore health. Chiropractic's adherence to the belief that subluxations cause disease is in seeming contradiction to scientific medicine. Chiropractors believe that germs are a necessary condition for many diseases, but not a sufficient one. For a disease to occur, the host must have been made susceptible to the disease by factors such as poor nutrition, stress, heredity, and vertebral subluxations.
3. While chiropractors see themselves as holistic healers specializing in preventive care, some physicians believe the field should be restricted to musculoskeletal conditions or eliminated altogether.

### Historical Developments

Early on, the field of chiropractic split into camps. The first camp maintained that chiropractic was not the practice of medicine and ought to offer solely spinal adjustment as a therapeutic modality. An alternative view

developed among many of the M.D.s who were also doctors of chiropractic that chiropractors ought to offer a wide variety of treatment techniques in addition to spinal adjustment. The former school became known as “straights,” while the latter group became known as “mixers.” Eventually, each group began its own national association: the American Chiropractic Association (ACA) for the straights and the International Chiropractors Association (ICA) for the mixers. Even at this time, however, most viewed the two associations as having much more in common than in conflict.

The field of chiropractic struggled through its early years. The Flexner Report of 1910 condemned existing chiropractic schools for failure to develop ties with universities and for the absence of demanding training programs. The Great Depression significantly reduced philanthropic contributions and cut back applications for schooling.

However, the most important early battle for chiropractic was to gain state-sanctioned licensure. It was not an easy battle as chiropractors were often jailed for practicing medicine without a license. Ultimately, being jailed became a successful strategy used to win public support for the field as a reaction to its persecution. Kansas passed the first chiropractic licensing law in 1913; 39 states gave some form of legal recognition by 1931; and, in 1974, when Louisiana began licensure for chiropractors, acceptance had been won in every state.

Wardwell (1992) has suggested that 1974 was the turning point for chiropractic. In addition to Louisiana’s accepting licensure, the U.S. Office of Education gave the Chiropractic Commission on Education the right to accredit schools of chiropractic; the federal government determined that chiropractors’ fees were reimbursable under Medicare; and Congress authorized spending \$2 million for a study of the merits and efficacy of chiropractic treatment by the National Institute of Neurological Disorders and Stroke (NINDS) of the National Institutes of Health. The NINDS Conference concluded that spinal manipulation does provide relief from pain, particularly back pain, and sometimes even cures.

## Organized Medicine and Chiropractic

For decades, the American Medical Association (AMA) attempted to drive chiropractic out of existence. As early as 1922, AMA officials adopted the slogan, “Chiropractic must die” (Reed, 1932). In 1963, the AMA’s Committee on Quackery referred to the elimination of chiropractic as its ultimate mission and engaged in such activities as “producing and distributing anti-chiropractic literature, communicating with medical boards and other medical associations, fighting chiropractic-sponsored legislation, and seeking to discourage colleges, universities, and faculty members from cooperating with chiropractic schools” (Gevitz, 1989:292).

In 1965, the AMA declared it a violation of medical ethics for M.D.s to have any professional association with chiropractors. Presumably, this proscription included making or accepting referrals of patients; providing diagnostic, laboratory, or radiology services; teaching in chiropractic schools; and practicing jointly in any form.

What was the motivation for such strong action? Organized medicine defended its actions on the ground that it was attempting to eliminate a practice it considered to be detrimental to patient welfare. Believing the vertebral subluxation concept to be grossly inaccurate and denigrating the low standards of chiropractic education, orthodox medicine defined chiropractic as having little or no therapeutic value and as being potentially dangerous. The AMA viewed these efforts as being consistent with its responsibility for guarding the public against medical quacks and charlatans.

On the other hand, chiropractic contended that the AMA’s actions were motivated by professional elitism (not wanting to share the prestige of the medical profession) and an effort to restrict economic competition. In fact, these contentions became part of a lawsuit brought by chiropractors in 1976 against the AMA for violating the Sherman Antitrust Act.

Whether motivated by sincere change in ideology or fear of an expensive defeat in the courts, the AMA instituted changes in policy during the decade-plus that the case was bogged

down in court. In 1978, the AMA adopted the position that medical doctors could accept referrals from and make referrals to chiropractors; and in 1980, the Principles of Medical Ethics were revised to eliminate the professional association prohibition.

Nevertheless, in August 1987, U.S. District Judge Susan Getzendanner found the AMA, the American College of Radiology, and the American College of Surgeons guilty of violating the Sherman Antitrust Act. She judged that the three associations had acted conspiratorially in instituting a boycott of chiropractic and had failed to justify it by its “patient care defense.” She required that the actions cease.

### Current and Future Status

Chiropractic clearly has established a very important place in the health care system. The educational preparation for chiropractors has continued to be upgraded. The curriculum is now comparable to that in medical schools with respect to study of the basic sciences; the major difference is that chiropractic students take courses in spinal analysis and manipulation and nutrition rather than in surgery and pharmacology (chiropractors are prohibited from doing surgery or prescribing drugs). Chiropractors must pass a national examination administered by the National Board of Chiropractic Examiners and must be licensed by a state board. Unlike many medical doctors, chiropractors are required to continue their education in order to retain their license (Wardwell, 1992). Both the ACA (with 9,000 members) and the ICA (with 8,000 members) promote the field of chiropractic and view the field as being patient oriented and wellness focused.

Unquestionably, many people believe strongly in the value of chiropractic treatment. Several studies have reported benefits of chiropractic care. A 1982 New York study found that almost three in ten (28 percent) persons had been examined by a chiropractor at some time, that 72 percent of recent users found it to be very effective, and that 92 percent would definitely or probably see a chiropractor again should a

need arise. Numerous other studies confirm that an increasing percentage and genuine cross section of the population visits chiropractors, that patient satisfaction is quite high, and that the general prestige of the field is on the upswing (Meeker and Haldeman, 2002).

Has all this changed the attitudes of physicians toward chiropractic? Apparently, it has to some extent. An increased number of medical doctors now recognize the benefit that chiropractic has for some patients, and medical doctors and chiropractors are increasingly likely to make and accept referrals from each other.

What will be the future status of chiropractic in American society? Aside from a continuation of the status quo, Wardwell (1988) suggests four possibilities:

1. Chiropractic could be absorbed by orthodox medicine as a routine part of medical practice, and it could be taught to all medical doctors (especially those in appropriate specialties) as part of their medical education. While chiropractors fear this eventuality, it is not likely that orthodox medicine could easily absorb the practice or that there would be sufficient M.D.s to provide all the required treatments.
2. Chiropractic could become a profession but be subordinate to physician supervision. While organized medicine may prefer that manipulative therapy be done by physical therapists (or chiropractors serving as physical therapists), this option is not appealing to chiropractors who would have to surrender the autonomy of having patients come directly to them.
3. Chiropractic could practice in a limited domain but be independent of supervision or regulation by organized medicine. While achieving this status would require chiropractic to modify its underlying theory, Wardwell believes that this is possible and is the most likely future direction for the field.
4. Chiropractic could become a parallel profession (like osteopathic medicine) by elevating its standards of medical training, reducing the gulf in underlying theory, and continuing to gain greater acceptance in the eyes of the

public and organized medicine. Clearly, many young chiropractors prefer this possibility and would like to be seen as appropriate family care providers. However, some skepticism in organized medicine remains, and many chiropractors are determined not to compromise their basic practice modality. Nevertheless, this seems to be the current direction.

## ACUPUNCTURE

Chinese understanding of health and illness has evolved over nearly 3,000 years and is recorded in more than 6,000 texts. Traditional Chinese medicine is a holistic system in which health is understood only in the context of the relationship between the human body and nature.

Medical theory rests on the belief that each object in nature is both a unified whole and a whole composed of two parts with opposing qualities: **yin and yang**. They are constantly in a dynamic interplay, shifting from being opposites to becoming each other. Yin represents the cold, slow, and passive principle, while yang represents the hot, excited, and active principle. Health is achieved and maintained by maintaining a balanced state within the body; disease occurs when the yin and yang forces become imbalanced (National Center for Complementary and Alternative Medicine, 2013).

An imbalance leads to a blockage that disrupts the flow of chi (vital energy) within the body. Chi is considered to be the primary force of nourishment and bodily protection. Though there is nothing exactly comparable in Western thought, it is sometimes viewed as the “will to live.” Chi flows through the body through 12 (or 14 or 20; sources vary) main channels (or meridians), activating energy in the circulatory system as it flows. The exact location of these channels has been charted and diagrammed, and each is thought to represent (and be connected with) an internal organ. Some of the exercises and martial arts performed by Chinese people stimulate the flow of this vital energy in the channels.

The harmony and balance within the body may be disrupted either by endogenous factors,

which originate from some serious internal imbalance, or by exogenous factors, which come from the external environment and may be physical (e.g., climactic conditions) or biological (e.g., bacteria and viruses). In performing diagnosis, traditional Chinese medicine follows the principle, “anything inside is bound to manifest outwardly.” An implication of this principle is that even localized symptoms (e.g., a headache) are not viewed as local disturbances, but rather as a sign of abnormality within bodily organs and the body’s channel system. Therefore, a headache does not necessarily mean an imbalance in or near the head.

The primary goal of Chinese medicine is to restore the internal balance of the body and the harmony between the environment and the human being. Since the body’s internal balance is constantly fluctuating, specific treatment must be tailored to the situation at the time.

While much of Western attention has focused on acupuncture as a treatment technique, it is actually only one of many options in traditional Chinese medicine. Other important treatment techniques include acupressure (significant pressure applied to the body via the fingertips), herbology (the use of natural herbs), moxibustion (placing ignited moxa wool on certain points of the body to create heat), various breathing exercises, physical activity, massage, and cupping (placing a small jar with a partial vacuum created by a flame over a selected part of the body producing an inflammatory response). Due to acupuncture’s unique history in the United States, this section will focus on it as a healing practice.

### Origin of Acupuncture in the United States

Even though it has been used in China for almost 3,000 years and was often practiced by Chinese immigrants in the states, acupuncture gained broad, popular attention in the United States only in the early 1970s. This discovery of acupuncture can be traced to two events that occurred in 1971: the lifting of the “bamboo curtain” with China, which opened relations between the countries, and an attack of

appendicitis suffered by famed *New York Times* columnist James Reston while he was visiting China—acupuncture was used the day after surgery to eliminate significant pain. Reston wrote of his experience in the *Times*, thus drawing widespread interest to the subject. A select group of American physicians (including a delegation from the AMA) visited China in the ensuing months, and their glowing reports of the efficacy of acupuncture ensured further popular and professional attention (Wolpe, 1985).

### Basic Principles

**Acupuncture** is the insertion of fine needles into one or more acupuncture “points” charted on the body. Today, there are more than 700 points that have been identified, although only 40 or 50 are commonly used. The needles used vary in length, width, and type of metal, and treatments vary in the depth to which needles are inserted, the duration of insertion, and the needle rotation.

The insertion of the needles is performed to stimulate chi in the body and to redirect it so that imbalances are corrected. The needles are inserted in those points that correspond to the particular internal organs where the imbalance exists.

### Historical Developments

Although American physicians largely focused on the anesthetic value of acupuncture, and ignored its therapeutic utility, the popular press offered vivid descriptions of acupuncture as a miracle process. The federal government encouraged research into acupuncture, and scientific journals published scores of articles. The Internal Revenue Service decided that payments for acupuncture service qualified as a medical expense, and the Food and Drug Administration developed quality control regulations for acupuncture needles. An American Society of Chinese Medicine was formed (Wolpe, 1985).

In July 1972, the first acupuncture clinic opened in New York City. When it was shut down a week later for practicing medicine without a license, it had already served 500 patients

and was booked solid for several months. Acupuncture had captured America by storm. Although the manner in which it would be incorporated remained to be determined, acupuncture seemed on the verge of becoming a major healing practice in the United States.

### Organized Medicine and Acupuncture

However, the medical establishment quickly reigned in the enthusiasm. One can understand the professional embarrassment created by a healing practice based on a theory that seemed completely contradictory to “scientific” medicine. The tremendous media and lay interest in acupuncture

quickly became anathema to most of organized medicine. Physicians had no expertise in acupuncture and no knowledge of physiological mechanisms that could account for it. Indeed, it seemed to violate laws of anatomy and neurophysiology. Acupuncture was an alien treatment with an alien philosophical basis imported as a package from the East; it was not an indigenous alternative modality that reacted to (and thus was informed by) the biomedical model. (Wolpe, 1985:413)

Negative and often hostile physician reactions escalated. The therapeutic effects of acupuncture were dismissed as being nothing more than placebo, and its effectiveness as an anesthetic was dismissed as being a type of hypnosis or form of suggestibility, or even that “Chinese stoicism” or patriotic zeal enabled patients to undergo excruciatingly painful surgery without other anesthetics (Wolpe, 1985). One physician referred to acupuncturists as “nonscientific weirdoes” and attempted to portray the entire acupuncture practice as modern-day quackery (Goldstein, 1972).

Wolpe (1985) contends that in order to protect its cultural authority over medicine, the medical establishment employed two additional strategies. The first was to sponsor and conduct research that would explain acupuncture in terms of the traditional biomedical model. While Chinese practitioners strongly believe that the practice cannot be separated from its underlying theory, and therefore cannot be studied by traditional scientific methods, much research has

been conducted to find a conventional explanation for its anesthetic effects.

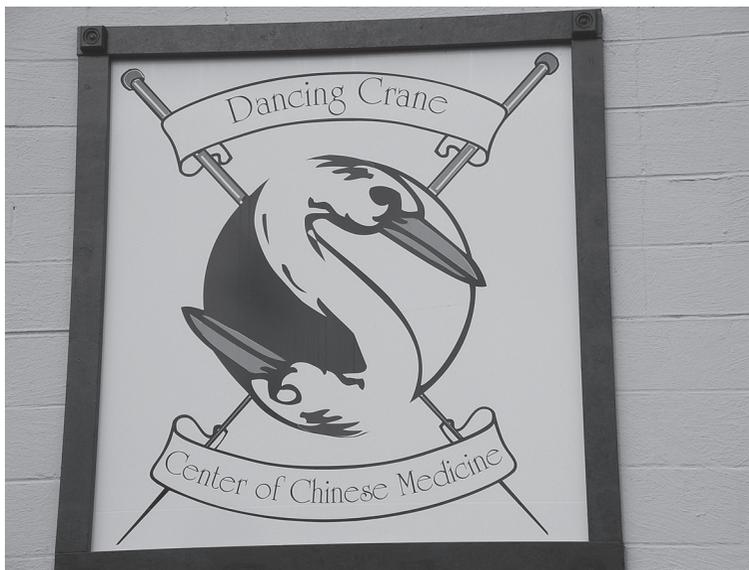
For example, Melzack and Wall (1965) developed the “gate control theory” based on research that shows that the insertion of needles excites certain nerve fibers that enter the spinal column and inhibit the onward transmission of pain to the brain. Stimulating these nerve fibers effectively “closes the gate” to pain. An alternative theory, also consistent with traditional neurophysiology, is that the needle insertion stimulates the release of certain pain-reducing hormones (endorphins and enkephalins), which create the anesthetic or analgesic effects. Some recent research has found that needle insertion reduces the flow of blood to the areas of the brain that control pain.

The second strategy was to arrange for the practice of acupuncture to be placed under the jurisdiction of medical doctors. After all, if acupuncture was beneficial only for pain relief, and if the explanation for that could be provided in conventional terms, then it could be argued that Oriental practitioners were not as able as Western practitioners to provide safe and effective treatment. Regulations governing the practice of acupuncture were quickly established in many states (either by the legislature or the State Medical Board).

### Current and Future Status

Today, there are 60 accredited schools of Oriental Medicine in the country, and more than 20,000 licensed (by the National Certification Commission for Acupuncture and Oriental Medicine or NCCAOM) practitioners. The NCCAOM offers certification in Oriental Medicine, Acupuncture, Chinese Herbology, and Asian Bodywork Therapy. Regulation is provided by states, but with different requirements. Most states require a practitioner to have a Master of Acupuncture or Oriental Medicine degree or its equivalent and national certification. It is estimated that more than 3 million adults in the United States use acupuncture each year. Many private insurers and the Medicaid programs in some states now cover the cost of acupuncture treatment.

Is acupuncture an effective anesthetic or therapeutic healing practice? Considerable research has reported favorable findings. In late 1997, a panel of scientists at the National Institutes of Health (including some who practice acupuncture and some skeptics of it) concluded that acupuncture clearly works in treating many conditions including nausea and vomiting after chemotherapy and surgery, the



Most states require traditional Chinese medicine practitioners to have a Master of Acupuncture or Oriental Medicine degree or its equivalent and national certification.

nausea of pregnancy, and postoperative dental pain. Although less data were available, they concluded that acupuncture may help stroke rehabilitation and relieve addictions, headaches, menstrual cramps, a variety of muscle pains, carpal tunnel syndrome, insomnia, arthritis, and asthma. They acknowledged that these benefits occur while acupuncture has fewer side

effects and is less invasive. The World Health Organization now recognizes more than 40 conditions as being treatable by acupuncture. Acupuncture is a fully accepted and practiced therapy in countries around the world.

The accompanying box, “Legalizing Medical Marijuana,” discusses a CAM technique that is currently in the news.



## IN THE FIELD

### LEGALIZING MEDICAL MARIJUANA?

In 1996, California voters approved Proposition 215, which permitted physicians to *recommend* marijuana for their patients. Because it would violate federal law, physicians were prohibited from *prescribing* it. In 1997, the *New England Journal of Medicine* endorsed the legalization of medical marijuana, arguing that it has clearly brought relief from pain for many people. Later that year, the AMA, though rejecting endorsement of legalization, called for the right of physicians to discuss any treatment alternatives with patients without possibility of criminal sanction. By 2012, 16 additional states (Arizona, Alaska, Colorado, Connecticut, Delaware, Hawaii, Maine, Michigan, Montana, Nevada, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, and Washington) allowed cannabis to be cultivated and used for medical purposes, and several now allow retail pot dispensaries (although some of the dispensaries have been accused of selling marijuana to anyone). Oregon permits medical marijuana cardholders to socialize at designated cafes and to use free, over-the-counter cannabis. Many more states are considering similar legislation. In 2012, Colorado and Washington voted to legalize recreational use of marijuana.

Until 2009, the U.S. Justice Department maintained that federal law prohibits any use of marijuana and indicated that it would use its authority under the Controlled Substances Act to revoke the license to prescribe drugs of any physician who *recommended* marijuana to a patient. In May 2001, the U.S. Supreme Court ruled that the federal law prohibiting the manufacture and distribution of marijuana means that it cannot be sold or used for medicinal

purposes. Although medical marijuana users are typically not prosecuted, they are in the awkward position of engaging in a behavior that has been expressly approved by their state but disapproved by the federal government. In 2009, the Attorney General of the United States, Eric Holder, indicated that President Obama would follow his campaign promise to stop raids on state-approved marijuana dispensaries (Hoffman and Weber, 2010).

Can marijuana be medicinal? Yes. Research has shown four beneficial medical effects: (1) It reduces the nausea associated with cancer chemotherapy; (2) it reduces “wasting syndrome”—the deadly loss of appetite and consequent weight loss that many AIDS patients feel near the end of life; (3) it reduces the painful muscle spasms and tremors experienced by many people with spinal cord injuries and multiple sclerosis; and (4) it reduces pressure inside the eye for persons with glaucoma (although another drug is now more effective). There is experimental evidence that it may be helpful in treating other conditions such as depression, Crohn’s disease, hepatitis C, and multiple sclerosis.

Are there any demonstrated negative side effects of marijuana use? Yes. Two such effects are: (1) it impairs cognitive functioning, negatively affecting coordination and short-term memory (studies have been inconsistent on whether there is any long-term cognitive impairment), and (2) it leads to respiratory damage (studies have found that smoking marijuana is even harder on the lungs than smoking tobacco).

Proponents of medical marijuana argue that individuals should have the right to decide

for themselves whether the benefits outweigh the harms. Because many of the users are and would be light users and would be using it only on a temporary basis, they argue that the harms are overstated. Besides, it is well known that many persons with cancer and with AIDS have long been using marijuana for relief but have been forced to do so surreptitiously. Opponents argue that liberalizing

use of the drug might lead to increased use of marijuana and/or other drugs and that the harms of the drug justify its continued ban. In addition, pharmaceutical companies, anticipating the possibility of patenting (potentially very profitable) drugs that include tetrahydrocannabinol (THC)—the active ingredient in marijuana—have opposed legalization of medical marijuana.

## SPIRITUAL HEALING AND CHRISTIAN SCIENCE

A belief in “psychic healing” has been present in early and modern times and in Western and non-Western cultures. Psychic healing “refers to the beneficial influence of a person on another living thing by mechanisms which are beyond those recognized by conventional medicine. These mechanisms may include focused wishes, meditation, prayers, ritual practices, and the laying-on-of-hands” (Benor, 1984:166).

Psychic healers use one of four approaches: (1) activating innate recuperative forces within the patient; (2) transferring her or his own healing energy to the patient; (3) serving as a conduit through which universally available cosmic energy is transferred to the patient; or (4) serving as a conduit through which the healing powers of spirits or God are transferred to the patient. The final channel is also referred to as **spiritual healing** or “faith healing” (Benor, 1984). Spiritual healers do not claim any personal ability to heal but rather an ability to convey the power of some transcendent being to the sick. Spiritual healers may or may not be affiliated with a particular church and may or may not be full-time healers.

### Efficacy of Spiritual Healing

Determining the efficacy of spiritual healing is difficult. Most of the evidence supporting positive effects is anecdotal and comes from people strongly predisposed to its benefits. Other more systematic research has been done but in ways that allow alternative explanations of the findings.

Many people accept that there are at least some cases where a subject’s health status has improved following a spiritual healing encounter. These cases are interpreted in different ways. Those involved in the healing process typically contend that God has intervened and in a miraculous way effected a cure. Others believe that the health improvement or cure has occurred through psychological processes, for example, marshaling the patient’s mental powers and determination to combat the ailment and/or convincing the patient that a cure will occur (akin to the placebo effect).

In a study of spiritual healing groups in Baltimore in the early 1980s, Glik (1988) discovered that most of the reported illnesses were chronic and mild to moderate in severity, with “nonspecific” diagnosis (but related to psychosomatic, stress, or mental health problems). Less than 10 percent of the reported conditions were life threatening or serious. Many of the symbols and rituals used in the groups (as well as the supportive social context) would be likely to affect the psyche of those present.

In the largest study ever done on the topic, researchers from six hospitals throughout the United States examined the effects of intercessory prayer, that is, someone praying for another for therapeutic improvement (Benson et al., 2006). Previous well-controlled clinical tests had not supported such benefits, but they had not addressed whether any outcomes were due to prayer itself or to the knowledge that prayer was being offered by someone. Patients in the study were divided into three groups: (1) 604 individuals who received prayer after being informed they may or may not receive it,

(2) 597 individuals who did not receive prayer after being told they may or may not receive it, and (3) 601 individuals who received prayer after being told that they would receive it. All patients were recovering from coronary artery bypass graft surgery.

The researchers focused on whether or not there were any complications from the surgery, any secondary major events, and mortality. Complications occurred for 52 percent of those who received prayer and 51 percent of those who did not (statistically insignificant). Of the patients certain of receiving intercessory prayer, 59 percent had complications compared to 52 percent of those who were uncertain (statistically significant).

### Public Perceptions of Spiritual Healing

Many people do relate religion and illness experience. The perception that disease and illness are caused by God declined through the 1900s but has increased in the last two decades. Many people continue to rely on religion as a coping mechanism when they are sick.

A recent study of older adults discovered many who were unclear about God's role in health and illness but nevertheless turned to prayer when sick. For most of these illnesses, care had also been sought from a medical doctor. Rather than viewing prayer and conventional medical treatment as being mutually exclusive, most of these respondents saw them as being complementary (Bearon and Koenig, 1990).

Most of the increasing number of studies that are being conducted have found that religion positively influences health. Compelling evidence has accumulated that individuals who attend a religious service on a regular basis have longer life expectancy than nonchurchgoers. Other research has found that regular churchgoers average lower blood pressure and cope better with illness. The findings may be interpreted in different ways. One national survey found that about one-third of Americans use prayer for health concerns, and that about seven in ten of these individuals considered it to be very helpful (McCaffrey et al., 2004).

Several studies have found that individuals who regularly attend church are less likely to engage in unhealthy lifestyles. Some research has found that prayer or meditation has a calming effect on individuals, which would help explain patterns like lower blood pressure (Koenig, McCullough, and Larson, 2001). Many analysts are concerned that these studies might be misinterpreted as providing evidence that faith-based practices may be used in lieu of medical treatment. All agree that more research is needed to understand the basis for these patterns.

The high level of religious commitment among many patients and the potentially positive effects of religious participation on health are acknowledged by most physicians. Even physicians who are themselves religiously skeptical must walk a thin line on this issue for fear of alienating devout patients. Koenig, Bearon, and Dayringer (1989) found that about two-thirds of a sample of family physicians and general practitioners believe that strong religious beliefs and frequent involvement in religious activities have a positive impact on mental health, and four in ten believe there is a positive effect on physical health. Many of the physicians were unclear about the extent to which they should become involved in religious discussions with patients. Most would in some circumstances, but few preferred this as a standard course of action. Almost one-fourth expressed a belief that faith healers can divinely heal some people whom physicians cannot help.

However, skepticism about spiritual healing remains at a high level. Spiritual healers do not have (nor have they created) any licensure process; there are no formal associations per se; and they may even be arrested for practicing medicine without a license. Even though it is careful in its language, the AMA is disdainful of spiritual healing and sees the practice as an attempt to take advantage of vulnerable people.

Public opinion surveys reveal that many in the general public share this suspicion of spiritual healing. A survey in rural North Carolina, an area where one might expect to find above-average participation in spiritual healing, found that 58 percent of respondents considered faith healers to be quacks (King, Sobol, and DeForge, 1988).

## Christian Science as an Example of Spiritual Healing

Of all the specific spiritual healing philosophies, that of **Christian Science** has received the most professional study.

**Origin.** To understand the many dimensions of Christian Science, it is necessary to understand its founder, Mary Baker Eddy (1821–1910). During her youth, Mary Baker suffered frequent bouts of illness that prompted her to devote her life to finding a cure for disease. Failing to be helped by medical doctors, she experimented with a variety of alternative healing philosophies.

At the age of 45, Mary slipped on an icy street, causing very painful head, neck, and back problems. When she received little help from local physicians, she turned to the Bible for comfort. While reading the account of the healings of Jesus, she discovered the “Healing Truth” and experienced a complete recovery. She initiated work as a healer, and in 1875 wrote *Science and Health*, which became the textbook of Christian Science.

The next few years were not easy. While alternately gaining followers and losing them (because of charges of temper tantrums, love of money, and hypocrisy), Mary Baker, her third husband, Asa Eddy, and a small group of devotees moved to Boston and founded the First Church of Christ, Scientist, in 1879. Although criticized by some, the church grew rapidly, branching out to additional churches, local societies, and schools. However, concerned about the bureaucratization of the church, Eddy dismantled much of its organizational structure and substituted a highly centralized structure with herself and the mother church in key positions.

**Basic Principles.** Gottschalk summarizes the basic principle of Christian Science healing as follows:

Christian Scientists hold that behind all diseases are mental factors rooted in the human mind’s blindness to God’s presence and our authentic relation to God, revealed in the life of Christ.

They hold that treatment is a form of prayer or communion with God in which God’s reality and power, admitted and witnessed to, become so real as to eclipse the temporal “reality” of disease and pain. (1988:603)

In other words, illness and pain are not real, but only illusions of the mind; since people are reflections of God, and God cannot be sick, people cannot be sick. A person feels ill only when the underlying spiritual condition is in disrepair. This causes the mind to think illness is present.

The only appropriate curative techniques are prayer and spiritual rediscovery. Through prayer, a deeper understanding of one’s own spirituality is achieved. Christian Scientists believe that they have the power within to heal themselves, although the assistance of a Christian Science practitioner is frequently used.

Unlike many alternative healing practices, Christian Science healing is believed to be incompatible with orthodox medicine. Medical doctors are viewed as adding pain and illness to the world as a consequence of their lack of understanding of the role of the mind. In fact, even obtaining a medical diagnosis is thought likely to worsen any condition.

**Historical Developments.** The key issues during this century have pertained to the standardization of Scientist-healing practices and external negotiation regarding their legality. Issues such as the appropriateness of Christian Science healing for emotional disorders and the extent to which Scientists should be commanded to live a “healthy lifestyle” have been debated.

**Organized Medicine and Christian Science.** Two chief points of contention continue to exist between the medical establishment and Christian Scientists. The first is the extent to which Christian Science healing should be acknowledged by the government and commercial health insurance companies as a legitimate form of health care. While this issue continues to be debated, it is clear that Christian Science has largely prevailed.

Several states have written legislation that provides recognition for Christian Science

healing as the equivalent of conventional medical care (e.g., Christian Science practitioners can sign certificates for sick leave and disability claims). Hundreds of commercial insurance companies reimburse charges for Christian Science practitioners as they would for medical doctors. Christian Science prayer treatment is typically covered by insurance plans for government employees, and Medicaid and Medicare also provide coverage.

The second continuing issue is the status of **religious exemption laws**, which permit legal violation of other laws based on religious grounds. For example, some states have religious exemptions for premarital blood tests for adults, prophylactic eyedrops for newborns, required physical examinations for schoolchildren, and instruction about diseases and health in school. Some states provide for exemption to required immunizations such as that for measles.

Following a widely reported case in Massachusetts in 1967, in which a Christian Scientist was convicted of manslaughter after her 5-year-old daughter died of medically untreated pneumonia, Christian Scientists have conducted a massive lobbying campaign for exemption from child neglect laws. Today, almost every state provides some type of exemption for religious groups relative to these laws. Still in dispute, however, is whether these laws extend to situations where forgoing likely effective orthodox medical treatment results in the death of a child.

Christian Scientists argue that religious exemption laws are required to enable adherents to practice their religion. What meaning is there in “freedom of religion,” they ask, if society compels its members to violate important tenets of the faith? Christian Science healing “is part of a whole religious way of life and is, in fact, the natural outcome of the theology that underlies it. This theology . . . is both biblically based and deeply reasoned” (Talbot, 1983:1641).

In addition, a second line of reasoning has been adopted: Christian Science treatment is at least as efficacious as orthodox medicine. In a widely quoted passage, a senior official

in the First Church of Christ, Scientist, Nathan Talbot, said:

Christian Scientists are caring and responsible people who love their children and want only the best possible care for them. They would not have relied on Christian Science for healing—sometimes over four and even five generations in the same family—if this healing were only a myth. (Talbot, 1983:1641)

The church now disseminates data from research it has conducted to demonstrate that Christian Science children are healthier than their peers and that there are lifetime health benefits in relying solely on Christian Science treatment. This line of reasoning has recently been incorporated in statutes in some states that permit reliance on healing practices that have a “proven record of success” or a “generally accepted record of efficacy” (Skolnick, 1990a).

Opponents of religious exemption laws contend that they violate the antiestablishment clause of the First Amendment, which prohibits special privileges for any religious group. Since Christian Science is singled out in some of these statutes, it is argued that they are given special license or endorsement by the government. For instance, in several states, Christian Science nursing homes do not have to meet required minimums for staffing or daily care provided to patients.

Religious exemptions to health laws are said to have harmful public health consequences. For example, a schoolteacher in Van Nuys, California, died in 1954 of tuberculosis after exposing hundreds of children to the disease. As a Christian Scientist, she had been exempted from the routinely required chest examination. Other reported disease epidemics include 11 children paralyzed by polio at a Christian Science boarding school in 1972, a 1985 outbreak of measles at an Illinois college for Christian Scientists, a second outbreak of measles in 1985 at a Colorado camp attended by Christian Scientists, and a small outbreak of polio in a Minnesota Amish community in 2005.

Opponents of these laws are especially displeased when the care provided to children is affected. The argument is that children are

unable to make fully informed and competent decisions about their religious preference and should not be placed in a life-threatening situation by the religious beliefs of their parents. An analogy often cited is the medical treatment given to Jehovah Witness children. While most courts today routinely allow adult Jehovah's Witnesses to forgo blood transfusions (an important proscription of the faith), children are routinely transfused over the wishes of the parents. Only at the age of competence does the scale tip in favor of the patient's wishes. The American Academy of Pediatricians has recently been leading an effort to remove religious exemptions to child neglect laws, and a couple of states have made this change in the law.

**Current and Future Status.** Specialized training for Christian Science practitioners remains minimal. Typically, people who have demonstrated special interest and knowledge in Christian Science healing are selected for training. The primary course lasts only about two weeks and focuses on Christian Science theology. At the conclusion of the class, one is listed as a practitioner in the *Christian Science Journal*. After three years of full-time successful healing, practitioners may apply to the Board of Education to take a six-day course. Graduates of the class are given a CSB (Bachelor of Christian Science) degree.

Is Christian Science healing efficacious? Beyond the highly favorable data published by the church itself, two scientific studies by researchers outside the church have been conducted. An early study (based on data from 1935 to 1955 in the state of Washington) found lower life expectancy among Christian Scientists, a much higher-than-average rate of cancer, and about 6 percent of deaths medically preventable (Skolnick, 1990b).

A second study (Simpson, 1989) comparing the longevity of graduates of a Christian Science college with a neighboring university found a much higher death rate among Christian Scientists. This pattern was discovered despite the fact that Christian Scientists neither smoke nor drink, factors that should have prompted a lower death rate.

The efficacy of Christian Science treatment is at least somewhat amenable to scientific study. In order to resolve the contradictory patterns reported by the church and the two studies cited above, Christian Science practitioners and patients may need to make themselves available to study by impartial outsiders.

## ETHNIC FOLK HEALING

Folk understandings of disease and illness are typically interwoven into the beliefs and practices of cultural groups. In the United States, folk understandings of the causes and cures of disease occur most often in low-income racial and ethnic minority groups. Some of the common denominators in folk healing systems have been identified and illustrated by Snow (1993) in her studies of black folk healers and their patients in Chicago. She found that her subjects' views of disease and illness were part and parcel of their religious beliefs—that illness may result from natural factors but might also be the result of sorcery, a temptation from Satan, or a punishment from God. While traditional herbal remedies and prayer might be sufficient for some conditions, others were perceived to be beyond the scope of either self-care or care by medical doctors and required a special healer from within the group. The folk healers practiced holistic medicine—they treated the whole person rather than just the particular malady and were more concerned about the cause of illness than its symptoms.

These patterns also appear in the two most widely studied systems of folk healing—*curanderismo*, the Mexican and Mexican American form of folk healing, and traditional Native American folk healing—that are covered in this section.

### Curanderismo

While many people use the term **curanderismo** to refer only to Mexican American folk healing, the term is used throughout the Hispanic world (especially in Mexico, Latin America,

and the southwestern United States) to describe a unique system of health care beliefs and practices that differ significantly from modern, scientific medicine.

### Origin and Historical Developments.

Curanderismo developed out of three primary sources: (1) the theory of bodily humors; (2) herbal medicine as practiced by the Aztecs, Mayans, and other Native American groups; and (3) religious belief systems, including both Spanish Catholicism and various witchcraft belief systems (Kiev, 1968). Over time, curanderismo has taken on important cultural meaning in Hispanic communities above and beyond its therapeutic value.

**Basic Principles.** First, good health is associated with “a strong body, the ability to maintain a high level of normal physical activity, and the absence of persistent pain and discomfort” (Krajewski-Jaime, 1991:160–161). Good health is viewed as a reward for those who have kept God’s commandments:

Even when a curandero uncovers specific causes of illness, he is still likely to focus on sin and the will of God as critical factors which have affected the susceptibility of the patient and predisposed him to illness. When illness occurs in a religious and pious person, it is rationalized by the belief that God allows men to suffer in order to learn. (Kiev, 1968:34)

Second, diseases are classified according to their underlying cause. Krajewski-Jaime (1991) traces disease etiology along three lines: (1) natural and supernatural forces (diseases believed to be caused by natural forces, such as moonlight, eclipses, cold, heat, air, wind, sun, and water or traced to the supernatural and magic); (2) imbalances of heat and cold (drawing directly from the ancient humoral theory, which identified positive health as occurring when the hot and cold forces within the body are in balance); and (3) emotion-based diseases (often resulting from a frightening or traumatic experience).

Third, like all other healing systems, curanderismo healing logically follows the nature

of disease etiology. Because disease is traced through several lines, the curandero (or curandera) must have several types of healing treatments available including prayer, herbal medicine, healing rituals, spiritualism, massage, and psychic healing. Two examples (the first pertaining to hot–cold diseases and the second to emotion-based diseases) are used to illustrate. First:

Some diseases are hot and some are cold. Foods and herbs are also classified into hot or cold for treatments. Sickness that enhances the cold within the body requires a hot treatment to restore the balance, and vice versa. To avoid a hot sickness, the person must not become cold; therefore, the individual must not walk barefoot on cold tiles for fear of catching tonsillitis. . . . People are given chili, a hot food, or chicken soup, for a cold disease such as pneumonia or a common cold, and lard, having cold properties, is used on burns. (Krajewski-Jaime, 1991:162)

The second example is a healing treatment used for a person suffering from *espanto*—a form of fright thought to be caused by the spirit’s being so frightened that it leaves the body:

Treatment by the folk healer includes having the patient lie down on the floor with arms outstretched in the position of a cross. Sweeping the body with branches, herbs, and prayers, she coaxes the lost spirit to reenter the victim’s body. (Krajewski-Jaime, 1991:162)

Finally, the curandero–patient relationship is very close. Curanderos typically live in the same community as their patients, share the same basic values, and recognize the importance of personal involvement and rapport. Patients expect, and receive, extensive time with the curandero. The culture within which this relationship occurs supports the therapeutic value of the curandero’s healing practices.

### Organized Medicine and Curanderismo.

Due to the cultural importance of folk healing in the Chicano community, the extent to which it is intertwined with religious beliefs, and its location primarily in just one region of the United States (though it exists in Hispanic communities

around the country), organized medicine has been reluctant to aggressively comment on or act against curanderos. Research indicates that they are paid very little (sometimes with food or other goods) and are not viewed as representing a generalized or serious threat to the medical establishment. Moreover, there is evidence that use of curanderos has declined during the last few decades (Rivera, 1988).

**Current and Future Status.** Research has found that many Hispanics follow the “dual model of medical care” in that they seek care from both medical doctors and curanderos. Padilla and his colleagues (2001) found that almost all the Hispanic patients receiving conventional care at a public hospital in Denver knew what a curandero is and 29 percent had been to a curandero at some time in their lives. Visits were most commonly for treatment for Mexican folk illnesses such as *espanto* and *empacho* (gastrointestinal obstruction). Research on Hispanic patients with diabetes found two-thirds who used some form of alternative medicine (mostly herbs and prayer), but none who used a curandero (Hunt, Arar, and Akana, 2000).

### Native American Healing

Traditional Native American healing continues to be commonly used among the 3 million Native Americans in the United States. While a general understanding of the causes of health and illness and healing practices is shared by all Native American peoples, there are, in effect, as many different healing systems as tribes. This section focuses on healers and healing among the Dineh—the Navajo people—the largest (with approximately 250,000 members) Native American group today.

**Origin and Historical Developments.** Navajo healing practices can only be appreciated within the context of Navajo culture. Understandings of disease and illness emanate from and are consistent with Navajo beliefs about the creation of earth and how the Navajo

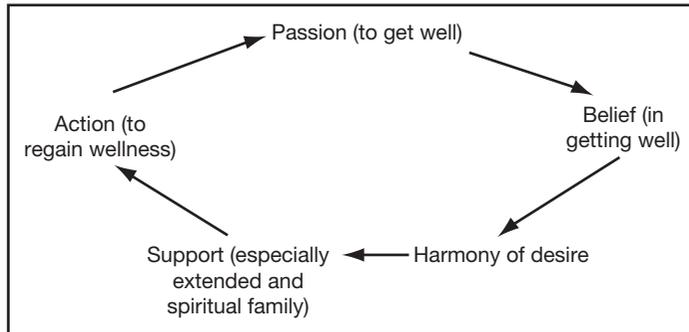
people came to be located where they are—on Dinétah (mostly northern Arizona).

Navajo healing is completely intermeshed with the religious belief system. Many of the Navajo’s religious rituals are focused on maintaining good health—or on wellness—and eliminating the root causes of illness. To maintain good health, one must live according to prescribed lifeways that were identified at the time of creation.

**Basic Principles.** Navajo philosophy rests on the belief that “everything in the world has life; all things breathe and live and have a spirit and power . . . all of these beings are interrelated and influence the workings of the universe; each has a role and responsibility for maintaining order in the universe” (Avery, 1991:2271). This philosophy contributes to a love and respect for “mother earth” and “father sky” and the wonders of the natural environment and a feeling of “oneness” with animals. Navajos do not attempt to “master” nature but to be one with it.

Wellness exists when one is in harmony with nature. Ursula Knoki-Wilson, a Navajo nurse-midwife, interpreter, and teacher, defines health holistically as “the synergistic interaction of all the dimensions (physical, mental, and spiritual) of a person at full potential,” and wellness as the “way that positive thought influences feeling so that the nature of a person’s life experience includes growth, renewal, and miracles” (Knoki-Wilson, 1992).

Second, when imbalances or disharmony develops, illness results. Illness occurs “when the free flow of spiritual energy to the mind, body, and soul is decreased by factors inside or outside the person” (Knoki-Wilson, 1992). Internal factors include such things as violence, destructiveness, anger, stubbornness, guilt, shame, and participation in any Navajo taboos (e.g., wasting natural resources). Outside factors include being a victim of witchcraft, disease, or object intrusion (i.e., invasion of the body by a worm, snake, or insect) and soul loss (which usually occurs during a dream when the soul departs the body). All these occurrences may have supernatural origin (Knoki-Wilson, 1983).

**Figure 11–3** Ingredients of Navajo Healing

Third, restoration to health occurs when the disharmony or imbalances are resolved or eliminated. Healing is enacted in physical, mental, and spiritual dimensions. Practitioners of Western medicine often emphasize the mental and spiritual dimensions of Navajo healing but only because they are often given so little prominence in their own techniques. Navajos emphasize that healing can occur only when all dimensions are involved. The ultimate goal of the healing practice is a return to oneness or harmony with nature. Figure 11–3 displays the ingredients necessary for successful Navajo healing.

Finally, at least four separate medical persons (all of whom can be female or male) are used in Navajo healing. One sees a **diagnostician** to learn the cause of illness and to obtain a prescription for the appropriate healing practice. The diagnostician, who is believed to have a special gift, may be a hand trembler (who diagnoses by passing her or his hands over the patient’s body and receiving messages from the spirits), a stargazer (who reads messages in the stars), or a crystal gazer (who looks through crystals to “x-ray” the body in order to locate problems).

The primary healer is called a **medicine person or singer** and has received a divine calling as someone with special qualities through whom the spirits can work: “Medicine persons are gifted with extrasensory perception that allows them to make mythological associations and identify the causes and remedies for illnesses” (Knoki-Wilson, 1983:279). Healing practices include prayer, participation in rituals, use of herbal medicines,

chants, physical manipulations, and ceremonial observances (Avery, 1991). Elaborate ceremonies lasting from a few hours to nine days (with only brief respites)—for example, the Yeibeichei Dance—are used to effect cures. Because the ceremonies are very structured and elaborate and must be followed precisely, medicine persons often study and apprentice for years in order to be able to conduct just one or two types.

The **herbalist** has practical knowledge about treatment of minor illnesses and has expertise in the preparation and use of herbal remedies.

Rather than utilizing the complex, traditional healing ceremonies, some Navajos will use religious rituals of the Native American Church and practitioners known as **roadmen**. These ceremonies typically use peyote as the healing herb and last only a single night, but they combine elements of the philosophy of the Navajos, the Plains Indians, and Christianity.

**Organized Medicine and Native American Healing.** Today, scientific medicine and Native American healing practices largely peacefully coexist on the Navajo reservation. While scientific medicine is practiced in the hospitals and clinics of the Indian Health Service, provisions are made within the hospitals for patients to bring in medicine persons, and space is provided for traditional healing ceremonies. Many Navajos, including those who live on the reservation and those who live in urban areas, use both conventional and traditional types of medicine (Buchwald, Beals, and Manson, 2000;



A traditional Navajo hogan in which diagnostic and healing ceremonies occur. Navajos believe that wellness exists when one is in harmony with nature.

Kim and Kwok, 1998). Navajos often use scientific medicine to treat the symptoms of illness but rely on traditional healing practices to treat the illness cause. This enables access to modern medical knowledge and technology without sacrificing the many benefits of the holistic approach and the community support provided by traditional healing practices.

**Current and Future Status.** It is hoped the beauty of the Navajo culture and the benefits of traditional Native American healing practices will be preserved. A main challenge will be to continue to find young Navajo women and men who have been called to be healers and who are willing to make the commitment to learning the healing ceremonies.

## SUMMARY

While scientific medicine is firmly established in the United States, millions of people use, are satisfied with, and even prefer complementary and alternative healing practices. Organized medicine contends that many CAM practices are ineffective and potentially harmful to users' health (if only because they divert contact from conventional healers). CAM healers argue that, like conventional healers, they seek to provide efficacious care, and they counter that orthodox healing practices have proven ineffective or even harmful for some. Many people follow a "dual model of medical care"—using both orthodox and CAM healers.

Although chiropractic may still be a "marginal" profession, it has also gained significant legitimacy. It is licensed in all 50 states, accepted by insurance companies, and is increasingly being accepted by many medical doctors.

In the early 1970s, acupuncture took America by storm. Though it quickly became very popular with patients, orthodox medicine did not accept its theoretical foundation and acted to restrict its practice. Recently, there has been substantial scientific endorsement of acupuncture so that its use may become more common.

Many physicians and laypersons perceive religious practices to have beneficial effects on health, but much skepticism exists about the general efficacy of spiritual healing. While the relative health of the Christian Science population is in dispute, Christian Scientists have had much recent success in having their healers recognized as legitimate and in getting religious exemption laws passed in states.

Curanderismo and Native American healing represent two types of folk healing practices.

Both are very much a part of their respective cultures and religious belief systems. Although there are differences between the systems, both

are more holistic than orthodox medicine and more concerned with the causes of illness than with merely treating symptoms.

## HEALTH ON THE INTERNET

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You can learn more about complementary and alternative medicine by visiting the Web site of the National Center for Complementary and Alternative Medicine at

<http://nccam.nih.gov>

What is the purpose of this site? Click on “Health Info” and then click on “What is CAM?” Read through all the information provided. How many of the CAM practices identified here have

been used by you, members of your family, or your friends?

In order to learn about two other popular CAM healing practices, visit [www.homeopathic.org](http://www.homeopathic.org) (National Center for Homeopathy) to learn about homeopathy and [www.naturopathic.org](http://www.naturopathic.org) (American Association of Naturopathic Physicians) to learn about naturopathy. How are these two practices alike, and how are they different?

## DISCUSSION CASE

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In June 1990, a jury in Boston, Massachusetts, found David and Ginger Twitchell guilty of the negligent homicide (involuntary manslaughter) of their 2-½ year-old son Robyn. The Twitchells were sentenced to ten years’ probation for failing to provide medical care that could have saved the life of their son, who died of an untreated bowel obstruction. The parents had contacted a Christian Science practitioner, but not a medical doctor. Massachusetts law does recognize spiritual healing as a form of medicine, but it requires parents to seek orthodox medical care for seriously ill children.

Testimony at their trial revealed that Robyn had suffered excruciating pain during the last five days of his life. A large section of his colon, scrotum, and other tissues had become necrotic, and even the pressure of a diaper on his abdomen caused him to scream in pain. Before becoming comatose, he began vomiting fecal material. The Twitchells consulted a Christian Science practitioner and nurse whose treatment consisted of “heartfelt yet disciplined prayer.” A medical doctor was not consulted.

The jury was said to be affected by testimony that, while forbidding medical care for children with critical illnesses, Christian Science does permit orthodox obstetric care (Mrs. Twitchell

had received an anesthesia when Robyn was born) and orthodox dental care (Mr. Twitchell had received treatment from a dentist for a root canal and impacted wisdom teeth).

What should be the legal responsibility of parents with critically ill children? Should society legally obligate all parents, regardless of their religious convictions, to utilize orthodox medical care? Would this, as Christian Scientists claim, interfere with the First Amendment right to religious freedom? Do judges and juries have a right to state that prayer is inadequate medical treatment? Based on the histories of alternative healing practices presented in this chapter, what dangers would there be from this type of regulation?

On the other hand, there are many laws in the United States governing parental behavior toward children and prohibiting child abuse and neglect. Shouldn’t the failure to get medical care that would probably have eliminated their son’s pain and saved his life be considered the ultimate act of child abuse? Even if adults have a right to use whatever type healing practice they choose, shouldn’t society require orthodox medical care for children (after all, wasn’t Robyn too young to adopt Christian Science as his own religious philosophy)?

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# CHAPTER 12

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## *The Physician–Patient Relationship: Background and Models*

### Learning Objectives

- Identify and explain each of the three key dimensions of the physician–patient relationship.
- Discuss the extent to which patients want to be fully informed about their health and be active participants in their health care. Identify and discuss key reasons that patient expectations are often not met.
- Discuss the extent to which patient characteristics such as social class, race, and symptomology influence patient care.
- Identify and discuss ways in which the gender of the physician and the gender of the patient influence patient care.
- Discuss the issue of patient compliance with medical regimens from a sociological perspective.

Despite the increasing complexity of the health care system and the wide variety of healers and healing techniques that exist, the actual encounter between physician and patient remains a key element. Many people have an idealized picture of this relationship: A sick patient seeks comfort from a benevolent physician; the sincere and helpful patient places trust in the concerned and caring physician; both do whatever is necessary to restore health to the patient.

In fact, neither patients nor physicians are so uncomplicated or behave in such a uniform manner, and the relationship between the two can be an elusive phenomenon to diagram. As sociologists, our goal is to help clarify the relationships that actually develop between physicians and patients and identify important influences on the relationship.

### MODELS OF THE PHYSICIAN–PATIENT RELATIONSHIP

#### The Parsonian Model

**Nature of the Relationship.** Within sociology, Talcott Parsons (1951) pioneered efforts at explaining the sociocultural foundation of health care. He viewed the physician–patient relationship as a subsystem of the larger social system. The key values in this subsystem reflected key values in society; they were shared by physicians and patients as they entered a relationship.

According to Parsons, the physician–patient relationship is inevitably (and fortunately) an asymmetrical one. Parsons believed that three circumstances dictated that physicians play the key, powerful role within the dyad and govern the relationship with patients.

1. **Professional prestige.** This is based on the physician's medical expertise, years of training, and the societal legitimation of the physician as the ultimate authority on health matters.
2. **Situational authority.** It is the physician who has established the medical practice and is offering her or his services to patients who have admitted their own inadequacies by soliciting the physician.
3. **Situational dependency.** It is the patient who has assumed the role of supplicant by seeking out service, scheduling an appointment, often waiting past the scheduled time, answering the physician's questions, and allowing an examination to occur.

Throughout each encounter, the "competency gap" between physician and patient is highlighted as the patient is dependent on the physician and the resources of the physician's office. However, Parsons expected that physicians would use their power wisely in promoting patients' best interests, and that patients would accept this arrangement as being the most efficient means to enact cure.

**Freidson's Criticisms of the Parsonian Model.** Perhaps the most important criticism of Parsons' model is that it overstates the "mutuality of interests" between physician and patient and does not provide for the considerable variation that now exists in physician-patient encounters. Conflict theorists dispute the notion that physicians and patients interact harmoniously and develop mutually satisfactory relationships through cooperation and consensus. Eliot Freidson (1970) has been a leading critic of the Parsonian model and an advocate for a conflict approach. He contends that conflict and dissensus are inevitable in any relationship in which the parties have such different backgrounds and power is so unequally distributed.

**The Szasz-Hollender Model.** An early (and now classic) effort to modify the Parsonian model was developed by two M.D.s, Thomas Szasz and Marc Hollender (1956). Arguing that Parsons gave too little attention to the important

influence of physiological symptoms, they developed their own typology of the physician-patient relationship, which includes three models.

**The Activity-Passivity Model.** This model closely parallels the asymmetrical relationship described by Parsons. The physician represents medical expertise, controls the communication flow between the two parties, and makes all important decisions. The patient is the supplicant, regarded as lacking in important information and necessarily relying on the knowledge and judgment of the physician. The relationship is akin to that of a parent and infant in which the parent takes actions without need of explanation.

**The Guidance-Cooperation Model.** Szasz and Hollender view this form of interaction as typical of most medical encounters. The patient is acknowledged to have feelings, may be alarmed by the medical problem, and has certain hopes and aspirations for the outcome of the medical encounter. Compared to the activity-passivity model, the patient has increased involvement in providing information and making decisions with regard to treatment. While the physician is still in charge and has responsibility for guiding the encounter, the cooperation of the patient is sought. The physician is less autocratic in the sense that some explanation is provided to the patient and the patient's assent to decisions is desired, but the physician retains the dominant position. Szasz and Hollender describe this relationship as being similar to a parent and adolescent.

**The Mutual Participation Model.** Based on a view that equalitarian relationships are to be preferred in medicine, this model elevates the patient to full participant. In this case, both physician and patient acknowledge that the patient must be a central player for the medical encounter to be successful. The patient knows more about her or his own situation—medical history, symptoms, and other relevant events—than does the physician. While the physician attempts to ask the proper questions to elicit key information, it is assumed that the patient also has an obligation to ensure that relevant information is disclosed.

In order for this type of relationship to work, Szasz and Hollender identify three essential traits that must be present. First, both participants must have approximately equal power (it is similar to a relationship between two adults); second, there must be some feeling of mutual interdependence (i.e., a need for each other); and finally, they must engage in interaction that will in some ways be satisfying to both parties.

Because this model “requires” more from the patient, they suggest it may be less appropriate for children or those who are mentally deficient, poorly educated, or very immature. On the other hand, those who are more intelligent or sophisticated, have broader experiences, and are more eager to take care of themselves may find this to be the only satisfying relationship.

### KEY DIMENSIONS OF THE PHYSICIAN–PATIENT RELATIONSHIP

An appropriate model of the physician–patient relationship must acknowledge the considerable differences that exist among physicians and patients about what should occur within the relationship. The following three dimensions of the relationship are key:

1. The appropriate model of health (a belief in the biomedical or biopsychosocial model of health)
2. The primary ethical obligation of the physician (patient autonomy or beneficence)
3. The extent of commitment to and realization of genuine therapeutic communication

The actual relationship that develops between a given physician and a given patient is determined by the orientations held by both parties. This is not to deny that the physician is in the more powerful position. For the reasons enumerated by Parsons and elaborated upon by many others, physicians have the potential to command the decisive voice. But many physicians now reject this position, and many patients have been socialized not to let them assume it.

### The Appropriate Model of Health

**The Biomedical Model.** As scientific discoveries produced meaningful explanations of diseases and effective medical treatments, the **biomedical model** of health became the dominant therapeutic orientation—a position it held for most of the last century. Biomedical medicine is essentially disease oriented or illness oriented rather than patient oriented. The key to effective medical care is believed to be correct diagnosis of some physiological aberration followed by proper application of the curative agent. Physicians seek to learn all they can about symptoms and abnormalities so that they can provide the appropriate “magic bullet.”

Consideration of social, psychological, and behavioral dimensions of illness has little place in this framework because it appears unnecessary. Engel (1977:129) cited one health authority speaking at a Rockefeller Foundation seminar who urged that “medicine concentrate on the ‘real’ diseases and not get lost in the psychosociological underbrush. The physician should not be saddled with problems that have arisen from the abdication of the theologian and the philosopher.” Another speaker had advocated “a disentanglement of the organic elements of disease from the psychosocial elements of human malfunction.”

This biomedical focus has been reflected in medical education, which has surely helped to sustain it. Both coursework and clinical experience have emphasized the biological basis of disease and illness, while psychological and social factors have traditionally received little attention.

**The Biopsychosocial Model.** While there have always been individuals who lobbied for a broader-based approach to health care (George Engel, a professor of psychiatry and medicine at the University of Rochester Medical School, has been a key figure for much of his career), it was not until the 1970s that the campaign flourished. Engel argued that the benefits of the biomedical approach need not be sacrificed while incorporating psychosocial matters and that both are needed to provide optimal health care.

To provide a basis for understanding the determinants of disease and arriving at rational

treatments and patterns of health care, a medical model must also take into account the patient, the social context in which he or she lives, and the complementary system devised by society to deal with the disruptive effects of illness, that is, the physician role and the health care system. This requires a biopsychosocial model (Engel, 1977:132).

While discussing the development of primary care as a medical specialty, Quill (1982) emphasized its potential for applying the biopsychosocial approach. He suggested that the following four principles distinguish broad-based primary care from the traditional disease-dependent care. In primary care:

1. The patient is addressed as a whole person, whether or not he or she has a disease.
2. The doctor–patient relationship is continuous, at all stages of the patient’s life, through sickness and health, until either the physician or the patient dies, moves, or decides to terminate the relationship.
3. The physician utilizes both biotechnical skills and interpersonal skills to help the patient.
4. Both the patient and the physician make explicit, and then negotiate, their respective needs and expectations (Quill, 1982).

**Current Assessment.** The extent to which physicians employ the biomedical or biopsychosocial approach can be analyzed by their efforts to identify psychosocial concerns of patients. Three empirical questions can be posed: Do many patients have specific psychosocial concerns? Do patients want their physicians to consider these concerns? Do physicians attempt to do so?

Many researchers have formulated a specific list of social or psychological matters that may affect health status, and then ask patients and/or physicians if these matters have been discussed with individual patients. For example, the “Psychosocial Concern Index Taxonomy for Provider Behavior” by Campbell, Neikirk, and Hosokawa (1990) identifies matters such as family and interpersonal relationships, socioeconomic status, work environment and

activities, sexual activity, nutritional patterns, and self-care practices—all topics that may influence health, but topics that many physicians do not routinely discuss.

Research shows that as many as half of patient visits to primary care providers include psychosocial complaints (Robinson and Roter, 1999). Most patients presenting themselves to a physician do not have a serious physical disorder; in general medical practice, estimates are that two-thirds or more are without a serious physical ailment.

What then is the motivation for so many physician contacts being initiated for nonbiomedical reasons? Barsky (1981) summarized the major reasons as being life stress and emotional distress (normal anxiety, grief, frustration, and fear), diagnosable psychiatric disorders (for which general medical physicians are seen more often than specialists), social isolation (people seeking advice, interpersonal stimulation, and a sense of belonging and sustenance that can be provided by a social support system), and informational needs (which are perhaps even greater than the need for treatment of symptoms).

Are patients genuinely interested in discussing these psychosocial concerns with their physician? Do these discussions actually occur? In one study, questionnaires were administered to 530 patients of a family practice medical center. Some (281) of the questionnaires solicited information on what psychosocial concerns respondents would want their physician to address, whereas the remaining questionnaires (249) asked which concerns they would expect their physician to address. Overall, results show that patients do want involvement across a wide range of psychosocial issues but typically do not expect it to happen (Frowick et al., 1986).

A study conducted in 23 primary care practices found that more than 70 percent of the patients believed it was appropriate to seek help from primary care physicians for psychosocial problems, but fewer than one-third of those who had experienced such problems had discussed them with their physician. Providers frequently



## IN THE FIELD

### *PHYSICIAN AVOIDANCE OF PSYCHOSOCIAL ASPECTS OF HEALTH CARE*

Given the importance of tending to psychosocial concerns, why don't more physicians do it? Inadequate exposure in medical school to its importance is one answer, but there are more. Williamson, Beitman, and Katon (1981) wrote of their experience in teaching the biopsychosocial approach to family practice residents. They were confronted with three types of beliefs that inhibited the residents from thinking psychosocially about their patients.

First, some of the residents held the belief that the physician's primary role was to focus on organic disease and that tending to psychosocial issues was either unrelated to illness, beyond their expertise, or more than they were able to handle. Second, some of the residents believed that patients wanted them to deal only with organic issues and that they would

consider questions about psychosocial issues an invasion of privacy. Finally, some residents lacked confidence in their own ability to treat patients as people and to genuinely help people through these kinds of problems.

Recent research has found that medical schools are now placing more emphasis on teaching communication skills and the psychosocial dimensions of patient care. Kern and his colleagues (2005) have developed a set of initial questions and follow-up questions for a range of psychosocial issues (such as alcoholism, depression, low health literacy, and posttraumatic stress disorder). However, evidence suggests that these efforts to investigate psychosocial dimensions are frequently not modeled in the clinical setting and may become extinguished because of that.

failed to recognize emotional distress and family difficulties (Good, Good, and Cleary, 1987).

These results are consistent with studies that have found that family physicians are unaware of most of what is happening in their patients' lives and that less than 10 percent of the conversation in average medical visits centered on patient psychosocial concerns (Roter, Hall, and Katz, 1988). Medical students and residents often report ineffective training in handling psychosocial concerns, and many remain unconvinced that knowledge of these concerns will ultimately lead to better health outcomes (Astin et al., 2008). Some commonly cited reasons physicians give to explain their avoidance of psychosocial issues are detailed in the accompanying box "Physician Avoidance of Psychosocial Aspects of Health Care."

#### Primary Ethical Obligation

Perhaps the most important ethical orientation of physicians relative to patient care is whether priority is given to patient autonomy or beneficence.

**The Principle of Autonomy.** **Autonomy** is a term derived from the Greek words for "self" and "rule, governance, or law." When applied to individuals, it refers to the concept of self-determination. Autonomous individuals are able to make their own choices and decisions and have them respected by others. The concept of autonomy makes three key assumptions:

1. An autonomous person is able to make rational and competent decisions following contemplative thought. People who are incapable of acting autonomously include those who are too young, or who are severely mentally retarded or have some significant mental disability, or who are coerced or unduly pressured into a decision by physicians or other health care professionals or, more commonly, by family members—"You have the surgery or the kids and I am leaving."
2. A second assumption is that an action does not cause harm to others. The freedom of any individual to act stops short of causing harm

to another; a decision to harm another incurs no obligation of respect.

3. Patients do not have the right to demand that physicians or other health care professionals violate a personal or professional moral code. For example, patients cannot make an unrestricted claim on some scarce resource (such as demanding a liver transplant). This assumption was clearly expressed in the Elizabeth Bouvia case described in the accompanying box “The Case of Elizabeth Bouvia.”

Application of the principle of autonomy involves physicians ensuring that patients are able to make fully informed decisions and that those decisions are then respected. This does not limit professional expertise in diagnosis, developing a prognosis, making recommendations for treatment, or carrying out agreed-upon treatment. It does limit physicians in selection and pursuit of treatment without the patient’s fully informed consent.

**Informed Consent.** The **informed consent** requirement is a key mechanism to protect patient autonomy. Legally and ethically, patients able to exercise autonomy must be given all relevant information regarding their condition and alternative treatments, including possible benefits, risks, costs, and other consequences and implications. For a genuine informed consent to occur, the patient must be competent, be given all information that might affect decision making, comprehend this information, and make a voluntary choice. For surgery, other invasive procedures, or procedures with any significant risk, patients are typically required to sign an official informed consent form. However, the spirit of informed consent is no less applicable—though often less followed—in the medical office.

**The Principle of Beneficence.** An alternative guiding principle for physicians is **beneficence**—doing good for the patient. While the general meaning of the concept is to promote goodness, kindness, or charity, in the medical context it refers to physicians taking whatever

actions—for example, surgery or prescribing a medication—that are considered to be in the patient’s best interest.

### **Prioritizing Autonomy and Beneficence.**

An ethical dilemma arises when doing good for the patient (beneficence) conflicts with an informed patient’s wishes (patient autonomy). It often occurs that a rational and competent patient chooses to take an action that a physician believes is not in the patient’s best interest. At this point, physicians decide whether it is more important to allow the patient to make her or his own choice or to act in a manner believed to be in the patient’s best interest. A physician is said to be showing **paternalism** when she or he overrides a patient’s wishes and takes action presumed to be in the patient’s best interest but is unwanted by the patient. This situation also creates a choice for the patient. If a patient desires self-determination, and the physician refuses to grant it, the patient can try to be persuasive, accede to the physician’s wishes, or shop for another physician. Of course, in many cases, patients would not be aware of physician behavior that is molding or limiting their choices.

The accompanying box, “Autonomy and Paternalism in Israel,” describes how the tension between these orientations is worked out in another country.

**Current Assessment.** Traditionally, most physicians have automatically made decisions for patients, and neither physicians nor patients gave much thought to the importance of patient self-determination. However, the principle of autonomy has gained significant stature in the last four decades. Today, most physicians express positive attitudes about patient participation in medical decision making based on the principle of autonomy, although many still see themselves as the ultimate decision maker (McGuire et al., 2005).

Researchers have attempted to study desire for autonomy by studying patients’ requests for information from physicians and their desired participation in actual decision making. In a



## IN THE FIELD

### THE CASE OF ELIZABETH BOUVIA

In the summer of 1983, Elizabeth Bouvia, a 26-year-old woman with physically incapacitating cerebral palsy, checked into Riverside (California) Hospital and stated her intention to starve herself to death. She said that her deteriorating condition (an inability to feed or care for herself in any way, increasingly painful arthritis, and physical incontinence) made life not worth living. She said that she was unable to take her own life and wished the hospital to provide hygienic care and pain relief while she starved herself to death.

The hospital refused her request and made plans to force-feed her should she not eat on her own volition. The chief of psychiatry at the hospital was quoted as saying, “The court cannot order me to be a murderer nor to conspire with my staff and employees to murder Elizabeth.” The story became public, and the American Civil Liberties Union decided to represent Elizabeth’s wishes in court.

Eventually, the court ruled against Elizabeth Bouvia. The judge acknowledged prior court decisions (and the ethical principle) that competent, informed patients have the right to refuse medical care, even if their refusal contradicts medical advice or might shorten their life. However, he concluded that Elizabeth’s plan not to take food and water in the hospital involved more than a refusal of treatment. Because she desired care while she died of malnutrition and dehydration, she was, in essence, asking hospital staff to assist in a suicide or direct killing that was morally and professionally unacceptable to them.

While the *Bouvia* decision carried several ramifications, and was later overturned, it has been interpreted to support the principle that neither physicians nor hospital staff may be forced to act in ways they interpret to violate a professional or personal moral code.

study of 106 rehabilitation medicine patients, Beisecker and Beisecker (1990) found that patients overwhelmingly want as much information as possible. However, there is ambivalence regarding the proper decision maker. While few subjects believe that the patient should make decisions singly excluding the physician, many believe it should be a shared process, and many are most comfortable with the physician being the primary decision maker.

This pattern was affirmed in research on participation in medical decision making by more than 600 patients at a Boston hospital. Based on responses to a series of questions, the authors placed each patient in one of four categories: (1) precontemplation (do not participate and do not intend to)—17.2 percent of patients, (2) contemplation (do not participate but contemplating doing so)—6.9 percent of patients, (3) preparation (participate to some degree)—36.1 percent of patients, and (4)

action (participate fully)—39.8 percent. What predicted patients’ participation? Patients who are older, less educated, have greater severity of illness, and are most trusting of the physician had the least participation and the least interest in participating. Younger patients, the well educated, those with less severe illnesses and with the most self-efficacy (confidence in own decision making) wanted to be and were the most involved (Arora, Ayanian, and Guadagnoli, 2005).

The percentage of patients wanting to participate in actual decision making has increased in the last three decades. Research has found that when patients are provided instruction in ways to be more effective participants in their own care and are given encouragement by physicians to participate, their desire for detailed information and participation in decision making increases (Fraenkel and McGraw, 2007). The situation



## IN COMPARATIVE FOCUS

### *AUTONOMY AND PATERNALISM IN ISRAEL*

In 1991, the U.S. Congress passed the Patient Self-Determination Act (PSDA) as a means to protect and highlight patient autonomy. The PSDA requires hospitals and other institutional providers to inform patients that they have a legal right to make their own health care decisions (through the process of informed consent), to prepare an advance directive to indicate how they would like to be treated if they are unable to make their own decisions at some future time, and to refuse unwanted medical treatment. It is a clear expression of the importance of patient autonomy in the United States.

In 1996, Israel passed the Israeli Patient Rights Act (IPRA) to address some of the same issues. The IPRA guarantees that Israel will provide universal health care coverage (which, of course, is not provided in the United States) and embraces the concept of informed consent. However, Israelis were not provided a right to refuse unwanted medical treatment,

and physicians were not obligated to respect the wishes of any patient making an informed refusal of treatment. In those cases, the matter is submitted to an ethics committee, which typically requires that the treatment be given as long as it is expected to help the patient's condition, and there is some expectation that the patient will give a consent *after* the procedure.

The U.S. law is rooted in the importance of the individual and in the right of individuals to determine their own course of action without paternalistic intervention by the health care provider. Israel is a communitarian society with a high level of collective consciousness, mutual concern, and interdependence. In communitarian societies, individual rights are often subservient to collectively defined ideals and goals. Ensuring that health care is available to all citizens is one aspect of the collective ideal, and ensuring that individuals receive lifesaving treatment, with or without their consent, is another aspect (Gross, 1999).

today with living wills (see Chapter 16) illustrates this pattern. Research has shown that the vast majority of people want to have candid discussions with their physician about their options and preferences regarding end-of-life treatments and want to have their wishes followed. Many physicians, however, do not engage their patients in conversations about this subject, are sometimes unaware that particular patients have written a living will, and are often unable to accurately predict end-of-life treatment wishes of their patients (Virmani, Schneiderman, and Kaplan, 1994).

Braddock and his colleagues (1999) audiotaped more than 1,000 encounters between patients and primary care physicians or orthopedists in order to determine the extent to which the patients were genuinely informed decision makers. The criteria they used included discussion of the nature of the decision and

asking the patient to voice a preference. They judged that only 9 percent of all decisions made fulfilled their criteria for informed decision making. Routinely, the physicians failed to appropriately inform and involve the patient. Other studies have found the same pattern in other medical settings.

When patients do fully participate, it is often because they have been assertive and initiated their participation. In one study of patients at three clinical sites, most (84 percent) of the active participation of patients was initiated by the patients rather than being prompted by physician partnership building or supportive talk (Street et al., 2005). A study of women receiving care in an ultrasound clinic for reasons other than pregnancy found that those who were more assertive—repeating information when they thought the physician had not heard them, asking the physician to clarify information that they

did not understand, and reminding physicians about screening tests—were in fact more likely to receive a mammogram than the patients who were less assertive (Andersen, Abullarade, and Urban, 2005).

Moreover, even on occasions when it may appear that physicians are seeking to involve the patient in decision making, they sometimes conduct themselves in such a way as to offer patients only an “illusion” of choice. In these situations, the physicians have essentially predetermined a course of action and then present options in such a way as to steer the patient toward the physician’s preferred course (Zussman, 1992).

### Establishment of Therapeutic Communication

It may seem obvious that effective and meaningful communication between physician and patient is to be desired. But this commonsense understanding understates the therapeutic importance of good communication and would certainly not predict its lack of attention in medical education. This section addresses four questions: What is meant by “therapeutic communication?” Does it routinely develop? What

barriers prevent it from developing more often? How can it be facilitated?

**Therapeutic Communication.** There are three components of **therapeutic communication**: (1) The physician engages in full and open communication with the patient and feels free to ask questions about psychosocial as well as physical conditions, (2) the patient provides full and open information to the physician and feels free to ask questions and seek clarifications, and (3) a genuine rapport develops between physician and patient.

**The Frequent Absence of Therapeutic Communication.** While many physicians place high value on developing therapeutic communication with patients and routinely do so, therapeutic communication does not exist in many physician–patient dyads. Patients do not feel comfortable with the physician, do not feel free to talk openly about their worries and concerns (and sometimes even symptoms), have questions that go unasked or unanswered, and do not understand information that is provided. These are not satisfying encounters for most patients.



Providing ample time for patients, engaging in full and open communication, and establishing rapport are ways that physicians encourage therapeutic communication.

### Barriers to Therapeutic Communication.

Development of genuine therapeutic communication requires considerable effort, even for those committed to it as an ideal. This is due to the fact that there are several inherent obstacles to open communication in the medical setting.

1. **Setting of the medical encounter.** Most physician–patient contacts occur in the physician’s office or in a hospital—settings that are not conducive to making the patient feel at ease. The unpleasant odors, the many sick people who seem to be invading each other’s space, and the paperwork requirements all contribute to discomfort. There are few ways to relax except reading current editions of esoteric magazines or news magazines that were timely in some previous year.
2. **Length of the medical encounter.** Genuine therapeutic communication cannot be developed in brief, abbreviated segments of time. The average length of an office visit with a primary care physician is about 20 minutes (Chen et al., 2009). Because some patients require more than 20 minutes, some receive less time. Of course, only a fraction of this time is spent discussing the patient’s illness.
3. **The mental state of the patient.** It would be a rare person who could communicate best when feeling worst. Most patients are feeling ill, are uncomfortable, may be anxious about their health and fearful of what will be learned, and are in awe of the physician. Not surprisingly, many do not think, speak, or hear clearly.
4. **Mismatched expectations of physicians and patients.** Patients go to a physician with symptoms, feelings of discomfort, and an inability to carry on normal activities. They seek clarification and information, and they want to know something to do to get better.

Physicians, on the other hand, have been trained to convert patient complaints into medical diagnoses. Uncomfortable dealing with psychosocial issues, they evade discussions of anxieties and fears and focus on the “medical facts.” What the patient may need

most is what the physician is least prepared to offer. These contrary expectations make therapeutic communication unlikely.

5. **Language barriers.** The increasing diversification of the U.S. population has brought with it an increasing number of people with limited proficiency in the English language. In 2010, it was estimated that more than 35 million Americans spoke a language other than English at home and that many of these individuals understood little or no English. Although an increasing number of health care sites offer interpreters in Spanish or in whatever language is most familiar to their patients, many sites do not do this. In these cases there is little likelihood of therapeutic communication occurring (Jacobs et al., 2006).
6. **Physician communication style.** Research on physician–patient communication conducted over the last three decades has demonstrated remarkable consistency regarding two key patterns. First, physicians often “talk down” to patients, are abrupt with them, and discourage open communication. Some physicians offer little greeting to patients as they enter the room. Going after “just the facts,” they provide no opening for patients to talk about their concerns or how they perceive current problems relate to other events in their lives. They may interrupt patients or otherwise signal a lack of interest in what is being said. They maintain spatial distance when not conducting a physical examination and do everything possible to reinforce social distance. Buller and Buller (1987) refer to this as the *control* style of communication and the net result is predictable—almost no therapeutic communication occurs. In one study, physicians did not allow patients to complete their opening statement in 69 percent of the visits (they interrupted patients after an average of only 18 seconds) (Beckman and Frankel, 1984), and in another study, physicians directly responded to only 20 percent of patient statements of anxiety (Baker, Yoels, and Clair, 1996). The second or alternative style, *affiliation*,

includes such behaviors as friendliness, empathy, genuineness, candor, an openness to conversation, and a nonjudgmental attitude and is designed to establish a positive relationship with the patient.

Candace West, in an intriguing book *Routine Complications: Troubles with Talk Between Doctors and Patients* (1984), confirms this asymmetrical communication process. West transcribed 532 pages of physician–patient encounters in a family practice center in the southern United States. She examined such matters as the number of times each party interrupted the other (male physicians were most likely to interrupt); who asks the questions and who answers (physicians ask almost all the questions); and who invokes laughter (patients invite laughter more often, but there is often no response). However, some encounters did display a symmetrical communication pattern.

Second, patients often do not understand the terminology used by physicians. People who have learned a particular subject’s or profession’s jargon often forget that most others have not. Even terms that are familiar to most college students, such as “eating disorder” and “depression,” are not understood by many patients. These are commonly used terms in the medical setting, yet when they are used, many patients misunderstand the message being communicated. Recent studies confirm the continued use of medical jargon that is not clarified for the patient (Castro et al., 2007). Not surprisingly, many physicians underestimate their own use of medical jargon.

**Physician Frustration With the Communication Process.** Physicians also report frequent feelings of frustration with patient interaction. What do they report as the most common sources of this frustration for themselves? Recent research identified the most common factors to be (1) patients’ lack of adherence (not accepting responsibility for their own health and not following through on

recommended therapies); (2) patients with a large number of complaints requiring an extensive amount of time; (3) patients being demanding, controlling, and complaining; and (4) patients with problems associated with alcohol, other drugs, and chronic pain. In more than half of the self-identified frustrating patient visits, the physician perceived the patient to be the source of the problem (Levinson et al., 1993).

These feelings of frustration may be perceived by patients and further inhibit effective communication. A recent study (Frosch et al., 2012) in San Francisco found that even relatively affluent and well-educated patients often perceive their physician to be authoritarian, feel compelled to defer to the physician in a clinical encounter, and consciously fear being categorized as a difficult patient. These feelings prevented them from participating more fully in their own care.

## THE CURRENT MOVE TO PATIENT-CENTERED CARE

In the last few years clinical and social science analysts have initiated a major move toward **patient-centered care**—[the provision] “of care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions” (Institute of Medicine, 2001). In one sense it is a statement of advocacy regarding the three principal components of the physician–patient relationship because it endorses a biopsychosocial model of medicine that values patient autonomy and the development of therapeutic communication. It goes beyond the simple education of patients about healthy behaviors, diagnoses, treatments, and prognoses, but it does not mean simply acceding entirely to patient wants and desires.

Rather, it is a full-fledged effort in designing the delivery of health care to fully consider the patient’s cultural traditions, personal values, family situation, and social circumstances. The emphasis is on providing ready access to

coordinated care for all persons, treating the whole person, developing effective communication, empowering patients, and developing physical spaces to facilitate effective care. The intent is to shift health care's orientation from the physician as centerpiece to the patient as centerpiece. If accomplished, the health care system would be modified to fit and prioritize the patient rather than having the patient adapt to the system.

The key to enhancing patient participation and involvement is being referred to as patient activation. **Patient activation** describes “the skills and confidence that equip patients to become actively engaged in their health care” (Hibbard and Greene, 2013:207). This would entail individuals assuming greater responsibility for managing their own health and their own health care. It would include making good decisions about lifestyle—for example, about diet and exercise and tobacco use—and knowledgably using health care resources available to them. It would be a cultural shift toward individuals being more responsible but also a shift in creating environments in which positive and appropriate health actions are encouraged.

An important pathway to achieving patient activation is increasing every person's **health literacy**, a term which is often focused on the individual level but is increasingly being viewed more globally as “the degree to which individuals, organizations, and communities obtain, process, understand, and share health information and services needed to make appropriate health decisions (Seubert, 2009). Typical estimates are that only 12 or 13 percent of U.S. adults are at a proficient health literacy level, while more than a third has difficulty with tasks such as understanding patient handouts, following medication instructions, or reading nutrition labels. So, health literacy has an important individual dimension, but it also has an important dimension of health care professionals and organizations working together to empower and enable patients to make informed health care decisions and choices.

Why the current push toward patient activation and health literacy? It is because research is

accumulating that they lead to significant benefits to individuals, patients, and the health care system. Research has discovered that patients with lower patient activation levels:

- Are more likely to report unmet medical needs
- Are more likely to have unmet prescription drug needs
- Are more likely to delay care
- Have lower levels of preventive health behaviors and preventive care
- Are less likely to engage in self-management of health conditions
- Are less likely to seek and use health care information from available health sources
- Appear to get less support from their providers in managing their health
- Are less likely to report that their provider helped them set goals and taught them how to self-manage their condition
- Are less likely to follow through on lifestyle changes and comply with treatment plans
- Are less likely to ask questions (Seubert, 2009)

Research has also shown that those with less health literacy:

- Are more likely to report poor health status
- Are less likely to obtain preventive health services
- Are twice as likely to be hospitalized
- Remain in the hospital more days for each admission
- Are less likely to comply with recommended treatment
- Are more likely to make medication errors
- Incur higher health care costs
- Are less likely to ask health care questions (Seubert, 2009)

Advocates for strengthening the emphasis on patient activation and health literacy will need to be careful not to slip into a “blaming

the victim” mentality. However, as long as the emphasis remains on the important contributions made by health care providers and the health care system in addition to individuals, many see this movement as having significant health care reform potential. For example, Koh et al. (2013) recommend that health literacy

become an organizational value of health care organizations that is part of all aspects of planning and design including self-management support, delivery system design, shared decision making support, clinical information systems to track and plan patient care, and helping patients access community resources.



## IN THE FIELD

### CHANGING THE PHYSICIAN–PATIENT RELATIONSHIP

In addition to the “patient-centered care” movement, at least three other recent developments are changing the physician–patient relationship:

1. The use of comparative effectiveness research. Historically, health care providers have used a variety of techniques to develop treatment recommendations. These have included information learned in medical school and in continuing education, personal experience with previous patients, peer consultation, personal intuition, and reading medical journals. The fact that there is considerable variety among physicians in formulating treatment plans for similar diagnoses stems in part from differences in these learning experiences. Recently, a major drive has been underway to conduct comparative effectiveness research—that is, research comparing active treatments and about what treatments overall have worked best for particular diagnoses—and to encourage physicians to follow what has been learned. If widely implemented, variation among physicians would decrease.
2. The increased use of patient satisfaction surveys in physician reimbursement. There is some inconsistency in results of research that examine the consequences of patients being satisfied or dissatisfied with their health care providers. Nevertheless, some research has found that satisfied patients are more likely to maintain a continuing relationship with their provider and are more likely to comply with medical instructions.

Hospitals are looking closer at patient satisfaction data in an effort to boost community reputation. Beginning in 2013, part of physicians’ reimbursement from Medicare will be based on patient satisfaction data, thus giving physicians a financial incentive to establish more satisfied patients.

3. The increased public availability of health information. Through both the Internet and direct-to-consumer advertising, medical knowledge is increasingly available to the general public (Boyer and Lutfey, 2010). The number of health-related apps grows every day and enables users to monitor their health in previously unavailable ways. Various consumer groups—including the influential American Association of Retired Persons—are encouraging individuals to procure and use this information to their health benefit. While many physicians are yet to be convinced of the utility of the widespread availability of all this information, it is highly improbable that it will decrease in popularity.

The fundamental change between past and present medicine is access to information. There used to be a steep inequality between doctor and patient. No longer. As people understand the risks as well as the benefits of modern medicine, we increasingly desire more information before we are willing to rely on trust to see us through. This need to be transparent about what doctors know (and what they do not), to engage in a consultation on closer to equal terms with patients, has changed the way medicine is practiced. (Horton, 2003:40)

## THE INFLUENCE OF SOCIAL CLASS, RACE, AND SYMPTOMOLOGY ON THE PHYSICIAN–PATIENT RELATIONSHIP

Ideally, physicians offer their best professional efforts to every patient. This does not mean that every patient will be treated in exactly the same manner—that is unrealistic. College professors do not treat all students the same; clergy do not treat all parishioners the same; and physicians do not treat all patients the same. But a reasonable objective is that physicians impartially deliver their best efforts to every patient. Yet, considerable empirical research and anecdotal evidence document that physicians have a more difficult time working with some patients than others.

### Medical Symptoms

Among the patients considered to be most difficult by physicians are those with certain types of medical symptoms, such as those who offer little hope for cure (e.g., emphysema, chronic back pain, arthritis, and obesity); those who are associated with devalued lifestyles (e.g., alcoholism and other substance abuses, prostitution, homelessness, attempted suicides, and lack of hygienic care); those whose symptoms are vague and difficult to describe; and those whose symptoms have a psychosocial basis.

In many of these cases, it may be the deviation from the sick role that is most frustrating. Physicians who take little personal interest in patients may be least likely to have an emotional response. They patch them up, get paid, and that's the end of it. More patient-oriented physicians, who earnestly want to help restore people to health (or to get them to restore themselves), may be most troubled by the inability or, in some patients, seeming lack of desire to get well.

Patients (e.g., substance abusers) with lifestyle-related illnesses are especially frustrating for physicians. They may present themselves for care on a routine basis, suffering from the same or an advanced stage of the same problem, yet resist efforts to discuss behavior modification. Their worsening condition, use of expensive

health care resources, and frequent rejection of physician offers for help often create frustration in physicians.

### Personal Characteristics

Several studies have investigated whether personal characteristics of patients influence physician behavior. Much research has shown that it does. For example, research has discovered that physicians feel higher levels of anxiety and frustration when working with lower class patients and are less interested in the patient encounter. Often, they hold stereotypes that are found among individuals who have had little personal experience interacting with poor persons and not received any systematic training in working with people across a range of social classes.

An increasing number of studies have found that many culturally sheltered white physicians feel some discomfort in working with black patients. One study of 139 first-year medical students found that they expected to be significantly less comfortable when working with black patients, and they believed that black and Latino patients would be less likely to comply with medical regimens (Gregory, Wells, and Leake, 1987). Another study documented unconscious bias against black patients by white physicians (Sabin et al., 2009).

Shim (2010) has proposed that these patterns are grounded in the **cultural health capital** of the patient. She uses that term to refer to the “repertoire of cultural skills, verbal and nonverbal competencies, attitudes and behaviors, and interactional styles” that people have to one degree or another and that physicians may relate better to individuals with more cultural health capital. For example, patients who demonstrate health literacy and an understanding of scientific rationality, who communicate in a medically intelligible and efficient manner, who take a proactive stance toward their health, who value self-discipline, and who reflect social and economic status are rewarded in medical encounters by more attentive and invested physicians.

**The Implications of Labeling.** Does this typing or labeling of patients make any difference in the care provided to them? Yes. Hospital staff told Mizrahi (1986) that patients labeled as undesirable were afforded less thorough care, and, in a review of studies of mental health care (an area where race has been systematically studied), cultural insensitivity and bias have been shown to lead to mistaken psychiatric diagnoses for black patients (Neighbors et al., 1989). African American patients rate their visits with physicians as being less participatory than whites, but both black and white patients report feeling more involved in their care when the physician is of the same race (Cooper-Patrick et al., 1999).

Several studies have reported evidence of disparities in treatment for heart disease received by blacks and whites. For example, data from the National Hospital Discharge Survey showed that blacks were less likely than whites to receive cardiac catheterization, coronary angioplasty, and coronary artery bypass surgery even after controlling for age, health insurance, hospital, and condition. The authors concluded that race of the patient influenced the likelihood of receiving these procedures (Giles et al., 1995). In a study of more than 5,000 Medicare recipients, Epstein and his colleagues (2003) found that whites were more likely than blacks to receive clinically indicated revascularization procedures, and that the underuse by black patients was linked to higher mortality rates. Other research has determined that black patients receive less supportive talk from physicians than do white patients (Street et al., 2005); blacks reported lower levels of trust with health care providers (Halbert et al., 2006); and the lower survival rate of black than white patients with early-stage lung cancer is largely explained by lower rates of surgery for blacks (Bach et al., 1999). Key documents published by the Institute of Medicine in 2003 and within the American Sociological Association’s Series on How Race and Ethnicity Matter (Spalter-Roth, Lowenthal, and Rubio, 2005) have concluded that systematic racial bias in the

provision of health care contributes to the unequal health outcomes among racial and ethnic groups.

**Cultural Competency.** In recent years, efforts have begun to produce “cultural competent” physicians. **Cultural competence** is an ability to work effectively with members of different cultures. It includes awareness of one’s own cultural background, knowledge about other cultures, an openness to working with diverse individuals, and effective communication skills to do so (Office of Minority Health, 2010). The Society of General Internal Medicine Health Disparities Task Force has developed guidelines for cultural competence training that includes (1) examining and understanding attitudes such as mistrust, subconscious bias, and stereotyping; (2) gaining knowledge of health disparities and solutions needed to diminish them; and (3) acquiring the skills to communicate effectively with members of diverse cultures (Smith et al., 2007).

In 2005, New Jersey became the first state to require cultural competence in order to get a medical license. Several states now require physicians to take continuing medical education credits in cultural diversity. Early research is finding success for these efforts with members of all cultures expressing positive feelings for physicians undergoing this training and reporting improved interaction (Paez et al., 2009).

## THE INFLUENCE OF GENDER ON THE PHYSICIAN–PATIENT RELATIONSHIP

### Gender of the Physician

The influence of physician and patient gender on the physician–patient relationship has received considerable research attention. Weisman and Teitelbaum (1985) have suggested that gender could influence the physician–patient relationship in three ways:

1. *Systematic differences between male and female physicians in personality, attitudes, or interpersonal skills.* Weisman and Teitelbaum speculated that early sex-role socialization

might result in female physicians being more nurturant and expressive while male physicians might be more reserved and less able to develop empathic relationships. On the other hand, females who have been sufficiently assertive to break through the traditional male stranglehold in medicine might be less likely to have been socialized to traditional sex roles, and/or the professional socialization that occurs in medical school might dissipate earlier socialization experiences.

2. ***Alteration of the expectations that patients bring to the encounter.*** This influence could occur in two ways. Patients expecting female physicians to be more nurturant and empathic may convey more information to them, allowing them greater opportunity to actually engage in a more caring relationship (a self-fulfilling prophecy), or patients may simply see what they expect to see—a more nurturant and empathic female physician—even if actual practice style does not differ by gender.
3. ***Alteration of the “status relationship” between physician and patient.*** The key to this is the match or lack of match in gender between physician and patient. For example, a female patient seeing a female physician is more likely to have status congruence than

when seeing a male physician. This status congruence could contribute to openness in the relationship, extended rapport, and increased patient participation. This pattern was partially demonstrated in one study that found that female patients tended to be more satisfied with female than male physicians but that satisfaction of male patients was unrelated to physician gender (Derose et al., 2001).

The following sections examine the first two of these mechanisms of influence in light of recent research.

**Systematic Differences Between Female and Male Physicians.** Several studies have identified aspects of practice style that are unaffected by physician gender. Female and male family practice physicians evaluate common medical problems in a similar manner; there are few differences in diagnoses, prescriptions of psychotropic medications, or frequency in hospitalizing patients among female and male psychiatrists; and female and male physicians react to patient deaths similarly and offer similar amounts of personal contact, availability, and follow-up with families after a loved one’s death.

Research finds few practice differences between female and male physicians, but female physicians do provide more opportunities for patients to talk and make more empathic statements.



These similar practice styles are influenced by the professional socialization process. First-year female medical students do differ from their male counterparts in being more patient oriented and placing higher value on patient contact. But these differences dissipate during medical school and the residency processes. The increased interest first-year female medical students have over males in valuing the interpersonal, psychosocial, and preventive aspects of medicine diminishes by the end of medical school.

However, consistent differences between female and male physicians have been documented in two areas. First, female physicians demonstrate superior communication skills. Research indicates that female physicians spend more time with each patient, provide more opportunities for patients to talk, make more empathic statements, ask more questions, smile and nod more frequently, are more egalitarian in the patient relationship (Hall, Blanch-Hartigan, and Roter, 2011), and demonstrate a greater orientation to preventive services (Flocke and Gilchrist, 2005).

Second, female physicians express more sensitivity than male physicians to health-related “women’s issues,” including contraception, abortion, and discrimination against female physicians and patients. These gender differences exist in medical school, throughout residency, and into practice and may be a key indicator to women of overall physician sensitivity. Moreover, research has shown that female physicians are more likely than male physicians to conduct mammograms and Pap smears and that this difference holds even when health status and background characteristics are controlled (Lurie et al., 1997).

**Patient Expectations for Female and Male Physicians.** Do patients have a preference for physician gender? Are the expectations of patients influenced by the gender of the physician? The answer to both questions is yes.

Between one-third and one-half of patients have a preference for the gender of their own physician. In a study of 196 patients in Spokane,

35 percent of the men expressed a preference for physician gender (every one preferred a male physician), and 36 percent of the women expressed a gender preference (25 percent of these preferred a male physician and 75 percent preferred a female physician) (Weyrauch, Boiko, and Alvin, 1990). A study of patients at four family practice centers found 52 percent of female patients and 43 percent of male patients had a gender preference, and clear majorities desired a physician of the same gender (Fennema, Meyer, and Owen, 1990).

Why are there gender-based physician preferences? Fennema and her colleagues (1990) found having a preference was not related to patient age, income, or education but to two other factors.

First, having a preference was related to the clinical problem for which the physician was being seen. Preferences were uncommon for strictly medical problems but were customary for problems involving genital or anal examination (strong preference for same-sex physician) and for depression and family problems (strong preference for female physician by both male and female patients).

This finding is consistent with that of several studies that have found that women’s strongest preference for a female physician occurs with women’s health problems—including cervical screening, breast screening by physical examination, breast screening by mammography, and instruction in breast self-examination. Moreover, while female physicians spend more time than male physicians with each patient, the greatest differential is in obstetrics and gynecology. Moreover, this is the medical field in which superior communication skills of female physicians are especially noted (Christen, Alder, and Bitzer, 2008). Women increasingly express preference for a female ob-gyn, and almost three-fourths of ob-gyn medical residents now are female.

Second, several perceived behavioral traits were related to preference. Patients who preferred a male physician associated competence with males and viewed humaneness as a male physician trait. Patients preferring a female

physician viewed technical competence neutrally but considered humaneness to be a female physician trait and felt that female physicians tended to be less hurried (Fennema, Meyer, and Owen, 1990).

### Gender of the Patient

**Gender Stereotyping.** Although there is considerable anecdotal evidence of sexist ideology among physicians, research has produced an inconclusive picture of the extent to which **gender stereotyping** of patients still occurs. Among the frequently cited health-related stereotypes of women are that they express higher levels of emotional illness and emotional instability, exaggerate claims of the severity of medical symptoms, and are more demanding patients. To what extent are these views held by physicians?

Bernstein and Kane (1981) presented eight hypothetical cases to primary care physicians. Did the gender of the patient (which was rotated) influence physician interpretation? Yes. Female patients were more likely than male patients to be seen as demanding excessive physician time, being influenced by emotional factors, and suffering from psychosomatic illness.

In another study, primary care physicians were presented with hypothetical patients (with gender rotated) with either headache or abdominal pain complaints. The physicians did judge the female patients to be more emotional even though nothing in the two cases varied except gender, but they did not judge their complaints to be less authentic or the patients to be less ill (Colameco, Becker, and Simpson, 1983).

Similar findings have been reported in research comparing the interaction of female versus male physicians with female patients. Based on reports of more than 8,000 patient visits, Gross and colleagues (2008) found that female physicians reported having developed higher rapport, feeling less uncertainty about the diagnosis, and rating the patient's condition as being serious.

**Level of Health Care.** Does gender stereotyping lead to differential treatment? In one widely cited study conducted in San Diego, the answer was yes. Five medical complaints (back pain, headache, dizziness, chest pain, and fatigue) were studied in married couples who had been seen for at least five years by one or more male family practice physicians. The researchers found that the physicians had conducted more extensive workups for the male patients and concluded that gender stereotyping had impacted care (Armitage, Schneiderman, and Bass, 1979).

Other studies, however, have failed to detect treatment differences. Greer and his colleagues (1986) attempted to replicate the Armitage study (using the same five medical complaints) in examining the medical charts of 100 married couples who had been seen for a minimum of two years by one or more of 20 physicians (10 male and 10 female) in a prepaid health maintenance organization. They found no significant differences in the extent of the workup based on the gender of the patient. The different organizational circumstances (prepaid setting, half of the physicians female) might help explain the different findings.

The largest study conducted utilized data on 46,000 adults collected in the 1975 National Ambulatory Medical Care Survey. Verbrugge and Steiner (1981) focused on the extent to which significant differences in care occurred between males and females and whether they were attributable to medically relevant factors or not. They considered diagnostic services, therapeutic services, and dispositions for follow-up in all visits, visits associated with 15 major groups of complaints, and five specific complaints (the same ones used in the aforementioned studies).

The data reflect that health care was often similar for females and males, but that significant gender differences occurred in 30 to 40 percent of the services and dispositions studied—with women receiving more services (including laboratory tests, blood pressure checks, drug prescriptions, and return appointments). These differences persisted even after controlling for

medically relevant factors (e.g., patient age, seriousness of problem, and reasons for visit) (Verbrugge and Steiner, 1981). The additional services provided to women could be interpreted in either a favorable or unfavorable light, but they are not consistent with a view that female patients are generally deprived of services offered to male patients.

Yet another study (Waitzkin, 1984) attempted to identify biases that occur in the actual communication process between female patients and their physicians. Using audiotapes of 336 interactions between male internists and their male and female patients, evidence of withholding information or “talking down” to female patients more often than to male patients was sought. Contrary to expectations, female patients received more physician time, asked more questions, and received more technical explanations and more clarifications of the technical explanations.

On the other hand, research now seems conclusive that gender bias does exist in the management of coronary heart disease. In a study of adults presenting to an emergency room with acute chest pain, women were less likely to be admitted to the hospital, undergo a stress test in the next month, and to undergo cardiac catheterization—even after controlling for clinical and nonclinical factors (Johnson et al., 1996). Other studies have found that women receive less aggressive treatment than men following a heart attack—even after controlling for relevant factors.

Researchers have been trying to explain exactly how this happens. Welch et al. (2012) have found that physicians tend to treat heart disease symptoms less aggressively—that is, order fewer diagnostic tests and delay prescribing appropriate medication—when they are uncertain about the diagnosis. Because so much heart disease research has been done on men, and because the prevailing understanding is that women are more likely to have atypical heart disease symptoms, physicians have greater diagnostic uncertainty when considering heart disease for female than male patients. This is one avenue that leads to

slower and less aggressive treatment. While more needs to be learned about gender differences in clinical decision making, the wealth of evidence of gender bias in treatment of heart disease should require immediate attention and remediation.

## **PATIENT SATISFACTION WITH PHYSICIANS**

Even if there was no instrumental value attached to patient satisfaction, it would be a highly desirable end product of the physician–patient encounter. However, research has confirmed that patient satisfaction is linked with several other desirable outcomes: Satisfied patients are more likely to comply fully with medical regimens, more likely to return for scheduled follow-up visits and to maintain continuity of care (seeing the same physician), more likely to seek physician care when sick, and less likely to initiate a medical malpractice suit. Recognition is increasing that positive health outcomes are more likely when the patient is satisfied with care received.

### **Level of Satisfaction**

Are most patients satisfied with the primary health care they receive from a physician? Yes. Research over the last few decades shows a consistent pattern: Patients have significant misgivings about the health care system in general and about physicians in general, but they are very satisfied with their own physician. On most surveys, satisfaction level is quite high, although not as high as in many other countries.

Do patients make distinctions among various aspects of physician–patient interaction? Yes. Most researchers have concluded that patients distinguish between the technical competence of the physician (which they have difficulty judging) and the socioemotional aspects of the encounter (which, therefore, become more important in their evaluation and are the basis for much of the rating of their own physician).

### Factors Related to Patient Satisfaction

Based on dozens of studies, four conclusions can be drawn about factors that influence patient satisfaction.

1. When other relevant factors are controlled, most patient background characteristics have little effect on satisfaction. The relationship between race and patient satisfaction has been especially difficult to pin down. Some studies have found no racial gap, while others have reported satisfaction to be higher among blacks or higher among whites. However, in a review of the literature on this subject, Malat (2001a) traced the inconsistent findings to weaknesses in the methodology of many of the studies. She concluded that satisfaction with medical care is lower among blacks than whites and identified both structural (e.g., lower incomes, less likelihood of health insurance, and less likelihood of continuity of care) and micro-level (e.g., racial discrimination and social distance) factors as contributing to the pattern. Several studies have documented that black patients have less trust in physicians than do white patients (Stepanikova et al., 2006). This lower level of trust has been traced to a greater perception of having been personally discriminated against in the health care system (LaVeist, Nickerson, and Bowie, 2000), a greater concern about harmful medical experimentation (Boulware et al., 2003), and greater social distance between minority patients and their physicians (Malat, 2001b). The lower level of trust contributes to the lower level of satisfaction.
 

Several studies have found that, among all race/ethnic groups, patient satisfaction is higher when the race of the provider and the patient is the same (LaVeist and Nuru-Jeter, 2002). Audiotaped physician–patient encounters have documented that race-concordant visits are longer and are characterized by more positive patient affect (Cooper et al., 2003), and that African American patients perceive that they are treated more respectfully by black than white physicians (Malat, 2001b). However, few studies have found clear clinical benefits from race-concordant relationships (Jerant et al., 2011; Strumpf, 2011).
2. Most patients feel ill-equipped to assess the technical competence of their physician. In most cases, patients simply assume the physician is competent and base their evaluation on other factors. However, the consumerist movement has stimulated many patients to become more knowledgeable about health matters and encouraged patients to solicit second opinions. This may provide patients with more information to make informed assessments of the technical competence of their physician.
3. The level of satisfaction or dissatisfaction patients have about their health care is significantly influenced by the quality of the communication process that occurs. Patients are much more likely to be satisfied with their health care when they establish an ongoing relationship with a physician (Rodriguez et al., 2007), when they establish rapport with the physician, when the physician conveys empathy (Epstein et al., 2007), when they are given (and retain) more information about their symptoms and participate more in possible treatments (Chen et al., 2008), and when they are able to ask questions and discuss their ideas and the ideas of the physician. Not surprisingly, patient satisfaction is lower in situations in which there are language differences between physician and patient (Morales et al., 1999).
4. Patient satisfaction is significantly affected by efforts of the physician to talk about psychosocial concerns and preventive health care. Despite some physicians' reluctance to delve into these areas or their belief that patients might prefer not to talk about them, patients want these matters discussed and are more satisfied with the care received when they are (Bertakis, Callahan, and Helms, 1998).



Research indicates that patients want and appreciate physicians who take time with them and establish genuine rapport.

### PATIENT COMPLIANCE WITH MEDICAL REGIMENS

Compliance with medical regimens refers to the extent to which patients follow the instructions given them by physicians. These instructions include requests for follow-up visits, the taking of medications, and changes in lifestyle (either temporary—get plenty of rest this week—or long term—stop smoking cigarettes). Research indicates that about one-half of all patients fail to comply with these regimens. Understanding the reasons for this noncompliance has become an important area of research as compliance has been associated with improved patient outcomes, reduced hospital visits, and lower out-of-pocket expenses (Roebuck et al., 2011).

Studies show that physicians tend to see **non-compliance** in terms of noncooperative patients. Most physicians believe they provide sufficient information and rationale for patients to fully comply with their instructions and see noncompliance as an irrational response centered in the patient. Physicians tend to underestimate the percentage of their patients who are noncompliers. Table 12–1 identified commonly given reasons for medical noncompliance.

**TABLE 12–1** Reasons for Noncompliance with Medication Treatment Regimen

Reasons for Noncompliance	(%)
I forgot to take them.	64
I had no symptoms or the symptoms went away.	36
I wanted to save money.	35
I did not believe the drugs were effective.	33
I did not think I needed to take them.	31
I had painful or frightening side effects.	28
The drugs prevented me from doing other things I wanted to do.	25
Nobody reminded me to keep taking it or to refill it.	20
I had difficulty getting the prescription filled.	20
The drugs tasted or smelled unpleasant.	19
I had difficulty opening the bottle or swallowing the drug.	16
I was confused by all of the drugs I have to take.	15

Source: Harris Interactive Poll on Noncompliance (New York: Harris Interactive, Inc., 2005).

### Factors Related to Compliance

Research on factors that relate to compliance behavior has identified several clear patterns:

1. Sociodemographic characteristics of patients such as age, gender, education, and social

class are not reliable predictors of compliance behavior.

2. Patient knowledge of the disease or illness that has prompted the instructions does not accurately predict compliance. For many years, clinicians and social scientists believed that compliance rates could be increased by creating better-informed, more knowledgeable patients. However, many noncompliers are very knowledgeable about their condition but still choose not to follow instructions.
3. The seriousness of the patient's disease or illness is not strongly related to compliance behavior; that is, more seriously ill patients are not more likely to be compliers.
4. The complexity of the medical regimen does influence compliance behavior. More complex regimens (e.g., medications that must be taken several times per day in restricted situations for a long period of time) are less likely to be fully followed than simpler, more short-term medication orders.
5. The most important factor affecting compliance is the extent of change required in the patient's life. Regimens that require significant life change (e.g., a major change in diet, a significant increase in exercise, and a significant reduction or elimination of alcohol or tobacco products)—especially those that require giving something up as opposed to adding something—are least likely to be followed.

### Sociological Explanations for Compliance Behavior

Sociologists have tested three plausible explanations for noncompliance; each of these explanations has received some empirical support. One explanation locates the problem

within the communication process between physicians and patients—that is, noncompliance results from inadequate or poorly communicated information from physician to patient about the nature or rationale of the regimen (in particular) or in the lack of physician–patient rapport (in general). Research has confirmed that compliance is more likely when physicians communicate thoroughly and clearly about a proposed treatment regimen (Zolnierek and DiMatteo, 2009) and when patient trust in the physician is high (Lee and Lin, 2009).

A second explanation traces noncompliance to the health beliefs of the patient. Some research has found that compliance is more likely when the patient feels heightened susceptibility to the disease or illness, the condition is believed to negatively affect daily functioning, and the medical regimen is considered to be an efficacious method of deterring or eliminating the health problem. When views between physicians and patients on these beliefs match, compliance is higher (Christensen et al., 2010).

Third, Peter Conrad (1987) has suggested that noncompliance be viewed as a matter of patient self-regulation. Rather than viewing noncompliance as a matter of deviance needing correction, this view sees noncompliance as a matter of patients tailoring their medical regimens to their lifestyles and life responsibilities. An in-depth study of 19 women who had been assigned one or more regimens found that they assigned greater priority to normal life routines and modified treatment regimens to fit into their preexisting lifestyles. Rather than seeing themselves as being noncompliant, they perceived that they were complying as much as possible, given other life responsibilities (Hunt et al., 1989).

### SUMMARY

More than any other sociologist, Talcott Parsons laid the foundation for understanding physician–patient interaction. Writing in the mid-nineteenth

century, he perceived that the physician–patient relationship is asymmetrical with power residing in the physician. He believed this asymmetry

was inherent in the relationship due to the professional prestige of the physician, the authority of the physician on health matters, and the situational dependency of the patient.

In order to incorporate more variation in the relationship, Szasz and Hollender constructed a model that includes three prototypes: an activity–passivity model (much like Parsons’s asymmetry), a guidance–cooperation model (with the physician in charge but the patient being more active), and the mutual participation model (physician and patient are both active agents).

Three key dimensions define the physician–patient relationship: the patient treatment approach (biomedical or biopsychosocial), the primary ethical obligation of physicians (patient autonomy or beneficence), and the extent to which genuine therapeutic communication develops within the relationship. Patients do go to physicians with many psychosocial concerns that they want physicians to address, but many physicians do not do so. Patients want to be well informed, but many still prefer the physician to be the chief decision maker. Research shows that many physicians talk down to patients and use terminology with which patients are not familiar.

Despite many similarities between female and male physicians, female physicians have better communication skills and convey more interest to patients regarding “women’s issues.” Approximately one-third to one-half of patients have a preference for gender of their physician, but the most apparent difference is that many female patients prefer a female ob-gyn. Patients are more likely to reveal personal information or to discuss mental health issues with a physician of the same gender.

Most patients are satisfied with primary health care received. The quality of communication between physician and patient and the physician’s interest in patient psychosocial concerns are the major determinants of patient satisfaction level. About one-half of all patients fail to comply fully with medical regimens. The more complex the regimen and the more invasive it is in one’s lifestyle, the less likely is compliance. Noncompliance can occur when there is a breakdown in physician–patient communication, the patient does not feel especially alarmed by the condition or confident in the regimen, and the patient modifies the regimen to fit with other life responsibilities.

## HEALTH ON THE INTERNET

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An interesting medical school-based Web site that deals with issues in the physician–patient relationship is sponsored by the University of Washington. Connect to this site at

<http://depts.washington.edu/bioethx/topics/index.html>.

What kinds of topics are covered? Click on “The Physician-Patient Relationship.” What are the main values underlying the various questions/answers in this section? Click on each of the case studies. How would you respond in each of these circumstances? What values would underlie your responses?

## DISCUSSION CASE

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A complex situation occurs in medicine when a patient’s religious beliefs dictate a medical decision that could be life threatening. Attending physicians are caught between respect for the patient’s personal religious values and the First Amendment right to privacy, on the one hand, and their commitment to engaging in all reason-

able medical efforts to save the lives of patients, on the other.

A specific illustration of this dilemma occurs when a member of the Jehovah’s Witnesses sect needs a blood transfusion in order to live. Jehovah’s Witnesses adamantly refuse this procedure based on their interpretation of biblical

scripture forbidding the “eating” or “taking in” of blood. Voluntary or involuntary receipt of blood results in the loss of eternal life. For both adults and children, blood transfusions are rejected. For discussion purposes, three cases involving Jehovah’s Witnesses (modified from Tierney et al., 1984) are presented.

*Scenario 1:* A 45-year-old bachelor visits his private physician after regurgitating large quantities of blood in the preceding two hours. He is taken to the hospital where examination reveals a continued slow oozing of blood in the patient’s stomach. He is fully alert and informs his physician that, as a Jehovah’s Witness, he will not accept a blood transfusion. His condition worsens, and the physician determines that a transfusion may be necessary to save his life.

*Scenario 2:* A 26-year-old married woman with two small children is in an automobile accident. It is determined that immediate removal of

the spleen and a blood transfusion are necessary to save her life. The woman protests that she is a devout Jehovah’s Witness and would sacrifice the chance to be with her family eternally if she is transfused.

*Scenario 3:* An otherwise healthy infant is suffering from Rh incompatibility and is in need of an immediate lifesaving blood transfusion. The parents are Jehovah’s Witnesses, however, and refuse transfusion of any blood products to their child. The parents consult with the deacon at their church and then state they would rather have their child die (and gain eternal life) than be transfused and continue life on earth but sacrifice eternal life.

What do you think should be done in each of these three situations? Should the blood transfusions be given? What are the implications of your position for the medical profession and for the rights of patients?

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## CHAPTER 13

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# *Professional and Ethical Obligations of Physicians in the Physician–Patient Relationship*

### Learning Objectives

- Distinguish between principlism and casuistry as approaches for determining moral rules of behavior.
- Compare and contrast relevant moral codes regarding physicians' obligations always to tell patients the truth, always to protect confidentiality, and always to treat patients with highly contagious diseases.
- Identify and discuss the major arguments on both sides of the three issues discussed in this chapter.
- Discuss patient preferences regarding physician behavior relevant to these three issues.
- Discuss physician preferences and actual behavior relevant to these three issues.

An important strategy for delving into the dynamics of the physician–patient relationship is consideration of the “rights” of patients versus the professional obligations of physicians. Three such issues (truth-telling, confidentiality, and the obligation to treat patients with communicable diseases) have received significant attention from social scientists, clinicians, and medical ethicists.

For sociologists, these issues are important for many reasons: They are closely related to the nature of the medical profession, the status of patients, and interactions between physicians and patients; they are creating new role demands for physicians and patients; and they are now a part of the formal and informal socialization process for health care professionals.

Moreover, the sociological perspective is essential for understanding the social context

of these issues. In the preface to *Bioethics and Society* (1998:xiv), DeVries and Subedi articulate sociology's contribution to understanding these issues as “getting the whole picture,” “looking beyond the taken for granted,” scrutinizing “existing arrangements of power,” and raising “questions about the social bases of morality”—“classic sociological concerns.”

### THE APPROACH OF MEDICAL ETHICS

The term **ethics** is derived from the Greek word “ethos” (meaning “character”) and the Latin word “mores” (meaning “customs”). Ethics is a field of study that helps “define what is good for the individual and for society and establishes the nature of duties that people owe themselves and one another” (Legal Information Institute,

2013). As such, ethics leads us to rules of moral conduct. **Medical ethics** is one of many applied areas of ethics. It focuses on rules of moral conduct as they apply to the practice of medicine. While traditionally a branch of moral philosophy, medical ethics is most informative when it draws from history, sociology, anthropology, theology, philosophy, and the clinical sciences.

As described in Chapter 2, thinking about moral ethics began in ancient times and is most associated in early history with Hippocrates in the fourth and fifth centuries B.C. As an academic discipline, medical ethics really began to emerge in the 1970s. Certainly, discovery of the gruesome medical experiments conducted by clinicians and others in Nazi Germany without, of course, any consent from the subjects stimulated more academic attention to the field. So did magazine reports of so-called “God Committees” in Seattle in 1962 deciding who would and who would not receive kidney dialysis and a chance to live, reports (also in 1962) of seriously questionable medical research projects in the United States, and the first human heart transplant in 1967. The social activism of the 1960s and the emphases on civil rights for African Americans; Native Americans; women; and lesbian, gay, bisexual, and transgendered individuals led naturally to greater consideration of the rights of patients.

### Approaches to Determining Moral Rules of Conduct Relative to Medicine

**Principlism.** Stemming in part from criticism of the Nazi medical experiments, many medical ethicists, clinicians, and others adopted an approach called **principlism** that based determined morality of conduct by determining its consistency with well-considered moral principles. This approach was given a substantial boost with the publication of Tom Beauchamp’s and James Childress’ *The Principles of Biomedical Ethics* in 1979. (It is now in its seventh edition.) Beauchamp and Childress carefully and thoroughly laid out four moral principles relevant to medicine:

- **Autonomy**—the right of competent individuals to be self-determining

- **Beneficence**—the commitment to doing good for others
- **Nonmaleficence**—the commitment not to harm others
- **Justice**—fair distribution of social benefits and burdens

Principlists believe that the appropriateness of each of these principles should be considered and thought given to their relative priority. When a question of moral duty occurs in the medical field, one can determine the moral action by applying and following the principles.

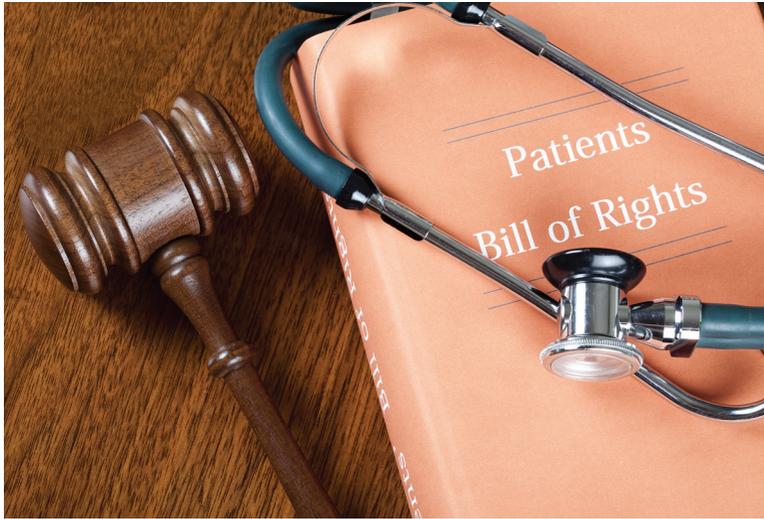
**Casuistry.** While there is some variation in how this term is used, it is generally an approach that emphasizes the value of beginning with analysis of particular cases, extracting moral rules from them, and applying these rules to new cases. It may be seen as a contrast to principlism which starts with consideration of moral principles and then moves to particular cases. Casuistrists are more likely than principlists to consider specific aspects of cases in determining whether particular actions are moral.

As you read through the three issues in this chapter, think about both the moral principles involved in each and the influence of social context and social outcomes in determining the professional and ethical obligations of physicians.

### TRUTH-TELLING AS AN ISSUE

An important gauge of the relative status of patients in the physician–patient relationship is the discretion felt by physicians to lie to or in some manner intentionally deceive patients. This issue occurs in various ways but is common when a physician learns some distressing news about a patient, such as a diagnosis of terminal cancer or some other life-threatening or chronic disease. The following brief case study illustrates one kind of situation in which the issue of truth-telling might arise:

A physician determines that a male patient is suffering from an advanced stage of lung cancer. It is too late for benefit from surgery, chemotherapy,



Many medical associations and organizations have now formally expressed the “rights” of patients in medical settings and in medical research.

or radiation. She feels that communicating this diagnosis to the patient will so depress and traumatize him that he will simply give up and die. In order to try to provide even a few weeks of additional time, she tells him the tests are inconclusive and asks him to return in a couple of weeks for the tests to be performed again.

### Are Lying and Deception Acceptable Professional Behaviors?

**Medical Codes.** Historically, most codes of ethical behavior for physicians were silent about the issue of lying and deception. While the Hippocratic Oath includes numerous pledges by physicians to patients, including confidentiality, nothing is said about truth-telling. There is no reference to truth-telling in the Declaration of Geneva, written in 1948 by the World Medical Association as a response to Nazi atrocities performed in World War II under the name of medical science or in the AMA’s Code of Ethics until 1980.

Other prominent ethical codes in medicine have addressed truth-telling and have occasionally made a strong statement on its behalf. Both the “Patient’s Bill of Rights” and the AMA’s Code of Medical Ethics (American Medical Association, 2013c) now clearly state that patients have a right to complete current information regarding diagnosis, treatment

options, and prognosis. Recent Presidential Commissions for the Study of Bioethical Issues have also supported full disclosure of information to patients as a way of increasing patient participation in actual decision making.

**Arguments Used to Justify Lying and Deception.** The most often-cited justification for lying and deception by physicians is referred to as **benevolent deception**. Many physicians believe that they have a professional duty to lie to patients if that is perceived to be in the patient’s best interest. This argument is supported by the rationale that physicians are employed by patients to provide the best-possible diagnosis and treatment. Since physicians are not automatons, they cannot and should not be expected simply to report the “facts.” Instead, as persons with extensive training in the practice of medicine, they should be given license to make judgments about what information would be beneficial for a patient to have and what information would do harm to the patient and to act on these perceptions.

Giورا (1980) suggests that too much has been made of “freedom of information” while too little consideration has been given to the idea of **freedom from information**:

Information is medicine, very potent medicine indeed, that has to be titrated, properly dosaged

based on proper diagnosis. Diagnosis, of course, in this context means an assessment of how information will affect the course of illness, how much and what kind of information is the most therapeutic in face of the patient's preferred modes of coping. (Guiora, 1980:32)

A second argument used to justify lying is that patients are typically unable to comprehend the “whole truth” of a matter, and physicians, therefore, cannot be expected to try to provide it. This situation is said to occur because most patients have limited medical knowledge and may incorrectly (or at least incompletely) interpret terminology used by the physician. Conveying a diagnosis of cancer exemplifies the point. Despite the tremendous progress made in the treatment of cancer and the steadily increasing rate of cure for many cancers, the “C” word continues to carry frightening implications. Since patients lack understanding of the disease and its treatment, the argument goes, it would make little sense to obligate physicians to communicate this diagnosis fully.

Finally, many physicians believe that some patients prefer not to hear the whole truth. Discounting surveys that show that a large majority of patients want full information, many physicians believe patients subtly communicate otherwise to them. Although patients sometimes make explicit their desire to have the truth couched in gentle language or withheld altogether, more often they communicate this preference through body language, tone of voice, or a message that requires the physician to “read between the lines.” If this is the message being communicated, many physicians argue, it would be unethical for them to reveal the truth.

**Arguments Used to Oppose Lying and Deception.** An alternative view is that truth-telling is an unconditional duty of medical professionals—that physicians are morally required always to provide full information to patients and never to lie or attempt to deceive them. Four primary arguments buttress this position. The first is that telling the truth is part of the respect owed to all people. To lie to or intentionally deceive another is to denigrate that person's

worthiness and treat that person as undeserving of a full and honest account. The legal requirement for informed consent from patients or research subjects implies a decision maker who is fully informed and has complete access to the truth. A physician who fails to provide honest information to a patient has usurped the possibility for a genuine informed consent to occur.

Second, veracity is consistent with the ideas of fidelity and keeping promises. When a patient solicits a physician, he or she is entering an implied contract. In exchange for payment, the patient seeks the best-possible diagnosis, recommendations for treatment, and (if agreed upon) the provision of treatment. Accordingly, any information learned by the physician about the patient should be provided to the patient. After all, who can be said to “own” that information? Does the physician own it and have a right to parcel it out according to his or her discretion? Or, does the patient own this information? Those arguing from this position believe the contract established between the patient and physician requires that a full and honest account always be provided.

A third argument used to support unconditional truth-telling is that lying or deception undermines a trusting relationship between patient and physician. If it is assumed that patient trust in a physician is a desirable goal, and that this trust facilitates a therapeutic relationship, then physicians must act in such a way as to maintain this trust. A patient who learns that he or she has been intentionally deceived by a physician may never again be able to trust fully information provided by that physician.

Finally, those taking this position claim that it offers certain clear benefits to the patient. It is argued that no one, including the physician, knows a patient better than the patient herself or himself. For a physician to determine that a given patient would be better off being deceived than hearing the truth, at the least, would require intimate familiarity with the patient's life history, important values, perceived obligations to self and significant others, and decisions the patient would make in light of truthful information. Rarely, if ever, could a physician claim to

have access to such matters or to know more about patients than they know about themselves.

Sissela Bok, a prominent medical ethicist at Brandeis University, summarizes this point:

The damages associated with the disclosure of sad news or risks are rarer than physicians believe; and the benefits which result from being informed are more substantial, even measurably so. Pain is tolerated more easily, recovery from surgery is quicker, and cooperation with therapy is greatly improved. The attitude that “what you don’t know won’t hurt you” is proving unrealistic; it is what patients do not know but vaguely suspect that causes them corrosive worry. (Bok, 1991:78)

A recent study of terminally ill cancer patients (Weeks, 1998) revealed dangers associated with being given false hope. Those who had an overly optimistic view about their survival chances were much more likely to choose aggressive therapies that made them sick but did not extend their life. Those with realistic views were more likely to opt for treatments designed simply to make them comfortable. The patients utilizing the aggressive therapies did not live longer, but their final months were more likely to be spent in a hospital, and they were more likely to die while still connected to a ventilator—costs attached to the provision of unrealistic expectations.

### The Current Situation Regarding Truth-Telling

#### Do Patients Want to Know the Truth?

Social science surveys have found that most respondents express a desire for truthfulness from physicians. As early as 1950, 89 percent of cancer patients, 82 percent of patients without cancer, and 98 percent of patients participating in a cancer detection program expressed a desire for honesty in a cancer diagnosis (Kelly and Friesen, 1950). Surveys conducted since that time have routinely found that more than nine of every ten respondents want all available information about a medical condition and treatment, even if it is unfavorable. This preference for candor crosses all population subgroups; it is not specific to any age, sex, race, or social class.

#### Are Physicians Truthful With Patients?

In the middle of the twentieth century, large majorities of physicians reported that they sometimes withheld the truth from patients. As attention to ethical issues in medicine increased in the 1960s and 1970s, more physicians adopted a truth-telling perspective. By the late twentieth century and early twenty-first century, most physicians report not only a propensity to tell the truth but also a continued willingness to deceive. Physicians typically acknowledge that most patients want accurate information about diagnosis and prognosis, and that they typically provide it. But they also frequently indicate a reluctance to communicate straightforwardly with patients who have a very negative prognosis. Many physicians place greater emphasis on the consequences (or outcomes) of a medical encounter than adherence to a principle of unconditional truth-telling (Novack et al., 1989).

The most recent large-scale study of the propensity of physicians to give complete information to patients occurred in 2003. This study of more than 1,000 practicing physicians found that 86 percent believe that physicians are obligated to present all information and medical options to patients. This does not mean that one should discount all physician discretion. Sixty-three percent of the physicians believe that it is ethically permissible to explain to patients their moral objections about certain possible actions. This research also identified what may be a developing trend. One physician in seven (14 percent) did not believe in any obligation to present information about procedures with which they disagreed or to refer the patients to other physicians who did not have the same moral outlook. These physicians tended to be very religious and justified the withholding of medical options from patients based on their own religious beliefs (Curlin et al., 2007).

These studies are consistent with important research conducted by Naoko Miyaji (1993), who discovered that American physicians seem to value ethical principles that support disclosure of information to patients—through both truth-telling and informed consent—and these

physicians give the impression that patients have control over obtaining information. But, in reality, physicians continue to manage the information-giving process. They interpret the principle of disclosure selectively and in such a way that they share with patients only as much information as they wish them to have. In the case of a patient with a newly diagnosed terminal illness, physicians emphasize possible treatments and decision-making options and give extensive information about them, but give much less information and play down grim prognosis information, citing uncertainty and lack of relevance to future actions.

This communication pattern is justified by physicians as showing compassion and respect for the patient and the principle of disclosure while preserving as much hope as possible. These physicians could well respond to survey questions that they provide truthful diagnoses to patients; this may explain some of the very high percentage of physicians who now report themselves to be unconditional truth-tellers. But, in closer examination, they still control the information-giving process and do not share

complete information about the patient's condition. Miyaji concludes that this pattern

shows the ambiguity and tension which define the doctor's new role as a partner of the patient. Preservation of their image (and self-image) as compassionate and caring physicians helps them to manage patient care in emotionally-laden situations like truth-telling as a healer. However, this humanistic model of the physician serves also to maintain the power of the profession, enhancing its "cultural authority" over patients. (1993: 250)

The manner in which medical truth-telling is handled in Japan is described in the Accompanying box, "Truth-Telling and Cancer Patients in Japan."

## CONFIDENTIALITY AS AN ISSUE

### The Tarasoff Case

On July 1, 1976, the California Supreme Court handed down a decision in the case of *Tarasoff v. Regents of the University of California*, one of the most important judicial cases to affect



## IN COMPARATIVE FOCUS

### TRUTH-TELLING AND CANCER PATIENTS IN JAPAN

Most countries in the world continue to struggle with the moral issues involved in disclosing or failing to disclose a terminal prognosis. Japan is a country in which physicians have traditionally refused to disclose terminal illness. In the United States, the right of autonomous individuals to be informed is now commonly respected (at least to a degree). In Japan, however, individuals are viewed primarily as being a part of a family and a community. The Confucian emphases on *kyokan* (the feeling of togetherness) and *ningen* (the human person in relationship to others) are prioritized over individual autonomy.

Given these emphases, Japanese physicians have traditionally lied to or deceived patients who are terminally ill (e.g., pretending the cancer is just an ulcer) and instead

revealed the prognosis to family members and consulted with them. Family members were strongly encouraged not to inform the patient of the real circumstances. Consultation with members occurred both in face-to-face interaction and through written communication.

In recent years, the tradition has begun to give way to greater respect for the autonomy of the individual. While young persons still respect the role of the family in decision making and medical care, there is now a greater call for open disclosure to the patient. While the likelihood of medical truth-telling in Japan is still less than in the United States, today more and more physicians are providing full disclosure of a terminal illness (Brannigan and Boss, 2001; Elwyn et al., 1998).

medical practice in our country’s history. The facts of the case were basically undisputed. In 1969, a student at the University of California at Berkeley, Prosenjit Poddar, confided to his psychologist, Dr. Lawrence Moore, who was on the staff at Cowell Memorial Hospital on the Berkeley campus, that he intended to kill Tatiana Tarasoff, a young female who lived in Berkeley but was at that time on a trip to Brazil.

Dr. Moore, with the concurrence of a colleague and the assistant director of the Department of Psychiatry, reported the threat to the campus police and asked them to detain Poddar and commit him to a mental hospital for observation. The campus police questioned Poddar, but satisfied that he was rational and based on his promise to stay away from Tarasoff, they released him. They reported their action to Dr. Harvey Powelson, the director of the Psychiatry Department.

Dr. Powelson requested no further action to detain Poddar or to follow up on the threats. Two months later, shortly after Tarasoff returned from her Brazil visit, Poddar went to her home and killed her. Later, when Tatiana’s parents learned that university officials had known about the threat to their daughter’s life but had failed to detain Poddar or warn them or their daughter, they brought a negligence suit against the therapists involved, the campus police, and the university and sought additional punitive damages.

The original court hearing the case dismissed all charges against all defendants. However, the California Supreme Court partially reversed the lower court’s judgment when a majority ruled that general damages against the therapists and the university were in order for their failure to warn the girl or her family (punitive damages were dismissed) (Tobriner, 1976). (Due to a technical error, Poddar’s second-degree murder conviction was overturned; since more than five years had elapsed since the murder, he was not retried under an agreement that he would return to his native India, which he did.)

What are the implications of this ruling? Should the therapists have been morally and legally required to warn Tatiana Tarasoff? If so, what other circumstances would justify

breaching confidentiality? Or, should physicians maintain absolute confidentiality regarding information shared with them by all patients in all circumstances?

### The Meaning of Confidentiality

The term **confidentiality** is often used interchangeably with “privacy” and with the concept of privileged communication. But the terms mean different things. **Privacy** refers to freedom from unauthorized intrusions into one’s life. As applied to medical matters, it largely refers to the control that an individual has over information about himself or herself (Wasserstrom, 1986).

Clearly, there are some things—one’s thoughts or hopes or fears—about which no one else will know unless that individual chooses to disclose them. As individuals, we are permitted to retain full custody of our private thoughts, and we cannot be compelled to compromise this sense of privacy. There are some occasions when we reveal our private thoughts to others but still hold dominion over them. For example, when we share information with certain professionals, such as physicians or the clergy, we do so with an understanding that this other person will respect our privacy and not reveal what has been said. This is the notion of “professional secrecy” (Wasserstrom, 1986).

Once information is revealed to another person, it is never again as private. At this point, the individual must rely on the professionalism or goodwill of the other person not to reveal the information. This is the meaning of confidentiality. In the medical encounter, an individual patient who reveals information to a physician must now count on the physician not to share the information with others. Maintaining confidentiality means that the information goes no further.

The idea of **privileged communication** comes from the legal system, which operates on the basis of *testimonial compulsion*—individuals with pertinent information can be required to present that information in a court of law. However, our legal system recognizes the value of professional secrecy. In order to foster a close and trusting relationship between individuals and selected professionals, information shared

with these professionals may be exempt from testimonial compulsion. The information or communication is said to be “privileged” in this sense.

### The Laws Pertaining to Confidentiality

Contrary to common perception, there are no constitutional provisions covering confidentiality of information shared with a physician. While the Fourth Amendment deals with the issue of privacy, its relevance to medical confidentiality has been left up to judicial interpretation. There is no common law that obliges physicians to hold confidential information shared by a patient. Such law does exist between lawyers and clients and the clergy and parishioners.

In order to fill this void, individual states have developed privileged communication statutes. About two-thirds of the states now have these statutes, which state that physicians cannot be compelled to reveal in a court of law information received from a patient. However, states have also identified certain types of information that physicians are legally obligated to share with proper authorities. This information includes certain health conditions (primarily communicable diseases such as tuberculosis and sexually transmitted infections), gunshot wounds, and suspected or clear physical or sexual abuse of children. Some states now require

physicians to report patients who may be unfit drivers (such as older individuals with certain illnesses), and some states recently tried unsuccessfully to require physicians to notify authorities if they treat undocumented immigrants.

Does a patient who feels that her or his physician has wrongfully breached confidentiality have any recourse in the law? Yes. Physicians may be sued for malpractice for wrongfully disclosing patient information under one or more of three legal theories: (1) an unauthorized disclosure of confidential information, (2) an invasion of privacy, and (3) a violation of an implied contract between the physician and patient.

Three important events regarding confidentiality have occurred in recent years. First, the **Health Insurance Portability and Accountability Act of 1996 (HIPAA)** included several measures to protect the privacy of patients and their medical records and to establish security of electronic health information. This legislation led to significant changes in protocol in medical facilities and with regard to the sharing of information about patients (United States Department of Health and Human Services, 2010).

Second, the American Recovery and Reinvestment Act of 2009 (which was primarily focused on measures to end the recession) included some HIPAA modifications including

The most important bill ever passed in the United States regarding medical privacy was the Health Insurance Portability and Accountability Act of 1996.



a requirement that data be collected and publicly reported about electronic breaches of personal health information. This requirement has produced alarming reports. Between 2009 and 2012, there were 499 major breaches of medical records (involving more than 500 people each) exposing the medical records of 21.2 million people and 60,000 smaller breaches (Conn, 2012).

These data have led to a third significant change. The Health Information Technology for Economic and Clinic Health Act went into effect in 2013 with the purpose of encouraging medical facilities to strengthen data security measures. These breaches can violate individual confidentiality, lead to medical identity theft, create fraudulent medical claims, and a host of other problems. It is not yet clear if its penalties for violations will sufficiently stimulate the development of stronger data security provisions (Mitka, 2013).

### Medical Codes

The principle of confidentiality has been firmly rooted in codes of medical ethics.

The classic reference to the importance of confidentiality occurs in the Hippocratic Oath (see Chapter 2): “What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself holding such things shameful to be spoken about.”

This statement is credited with influencing all subsequent efforts to note the ethical responsibilities of physicians. Today, the ethical code for nearly every medical group includes some reference to confidentiality, such as the American Medical Association (Code of Medical Ethics, 2013a).

### When Confidentiality Becomes an Issue

Today, we generally think of three kinds of situations in which medical confidentiality may be an issue. The first are accidental or not so accidental “slips of the tongue” that physicians commit when chatting with family, friends, or



Rapidly increasing medical technologies have created new and challenging issues related to medical ethics.

colleagues. Fortunately, most health care professionals are careful not to let information about patients slip, though these “irresponsible” breaches do occur—often when inhibitions have been lowered by exhaustion or alcohol.

The second type results from the increasingly large number of persons who have access to patient information and data. More and more allied health workers have access to patients and patient records; and more and more agencies, including public health agencies, third-party payers, medical peer review committees, employers, credit investigation agencies, social welfare agencies, and medical researchers have a legal right to patient data. A plan to electronically connect the computers of all physicians, hospitals, labs, pharmacies, nursing homes, and insurance companies in the United States in the next few years almost guarantees uncontrolled

and uncontrollable access by hundreds of thousands of people to medical records. Etzioni (1999) has referred to these breaches of confidentiality as “authorized abuse.” They occur on a daily basis and raise serious ethical questions but are currently perfectly legal.

Finally, another set of intriguing ethical questions occur in situations in which physicians must make a conscious decision about whether or not to violate confidentiality. Cases like *Tarasoff* dramatize the issue. The remainder of this section of the chapter focuses on these issues.

### Justifications for the Principle of Confidentiality

Philosopher Sissela Bok (1989) summarizes four justifications for physicians to protect the privacy of information shared by patients: (1) protection of the patient’s autonomy over personal information; (2) enhancement of the physician–patient relationship; (3) respect for the patient; and (4) opportunity for individuals to communicate more freely with the physician.

This final rationale was used by the justices writing the dissenting opinion in the *Tarasoff* case. Writing for the minority, Justice William P. Clark (1976) described three specific reasons that confidentiality ought not be broken. First, individuals needing treatment will be more likely to seek help. Second, individuals seeking assistance will be more likely to provide full disclosure. Finally, trust in the psychotherapist will be enhanced. Although distressed with situations like the *Tarasoff* case, the justices contended that maintaining confidentiality, rather than breaking it, will minimize tragedies in the long run because those needing help will not be dissuaded from seeking it.

### Grounds for Breaking Confidentiality

Few persons dismiss the importance of confidentiality. But where some people see confidentiality as an unconditional duty (never to be broken), others believe it to be a prima facie responsibility—justifiably broken if there are compelling reasons. Three such reasons are cited.

The first is benefit to the patient herself or himself—the principle of beneficence. An example where this rationale might apply would be a temporarily depressed or traumatized individual who threatens to commit suicide or engage in some disreputable, out-of-character behavior. In order to secure assistance to prevent the action, the physician may need to break confidentiality and disclose the stated intention of the person. However, physicians must be sure that an action contemplated by a patient really is a product of an irrational mind. Many people are too quick to assume that any decision made by another that is inconsistent with one’s own values is not a rational decision.

A second possible justification for violating medical confidentiality is that it may conflict with the rights of an innocent third party. As a society, we must determine whether we prefer that innocent third parties be warned of impending danger, even though that means a breach of confidentiality, or that confidentiality not be broken.

The *Tarasoff* case is an example of this justification, but it may occur in less extreme circumstances. For example, suppose a physician has as a patient a young man engaged to be married. He knows the young man is concealing his permanent impotence from his fiancée. The question arises whether the physician should break confidentiality with this young male patient and reveal the information to the fiancée or place priority on maintaining confidentiality and letting the chips fall where they may.

A third possible rationale for violating the principle of confidentiality is danger or threat to the rights or interests of society in general. As previously mentioned, various states require physicians to report certain specified diseases or conditions to proper authorities. But not all such situations are governed by law. For example, how should a physician respond when he or she detects a serious medical problem in a patient whose occupation influences the safety or lives of countless other people? What should be done in the case of a railroad signaler who is discovered to be subject to attacks of epilepsy or an airline pilot with failing eyesight?



## IN THE FIELD

### THE INFLUENCE OF PATIENT GENDER, RACE, AND SEXUAL PREFERENCE ON MAINTENANCE OF CONFIDENTIALITY

Physicians may consider a variety of factors in determining whether to break a confidence with a patient. Schwartzbaum, Wheat, and Norton (1990) attempted to determine if physician behavior was at all influenced by the gender, race, or sexual preference of the patient—factors that would not seem relevant. A sample of white, male primary care physicians was given a case study in which an HIV-infected patient presented a risk to a third party. Eight different descriptions of the gender, race, and sexual preference of the patient were distributed randomly among the physicians—one description to each. Each physician was asked to select his own likely behavior from a list of five choices reflecting a range of confidentiality breaches.

The physician respondents were more likely to report black homosexual and heterosexual men to the health department and black heterosexual men to their partners than hypothetical patients in other categories. Were these physicians influenced by the greater use blacks make of public health departments (thus informing the health department seemed logical)? Were these physicians influenced by the perception that black HIV-positive men are more likely to be IV-drug users and thus possibly less likely to be conscientious about informing their partners? Or, was there an explicit or implicit racial bias that influenced behavior?

Cases such as these force physicians to determine their primary obligation. Is it to protect the confidentiality of the diagnosis, recognizing all the accompanying benefits, or is there a greater obligation to the unknown others whose lives may be jeopardized by the medical condition of the patient (Allmark, 1995)?

#### Right Versus Duty to Breach Confidentiality

If, in certain situations, society decides that physicians have a “right” to break confidentiality, would we advocate a policy that says they have a “duty” to do so? That is, does the physician who diagnoses the epileptic railroad signaler not only have a right to disclose the information but also a moral responsibility? A legal responsibility? Should society morally and legally insist that proper authorities be notified?

Where serious harm is likely to occur, Bok (1991) argues that the duty to warn is overriding. She contends that patients have no right to entrust information of this type to physicians and expect them to remain silent. And physicians have no right to promise confidentiality

about such information. Of course, this is also the position taken by the majority in the *Tarasoff* case when the judges argued that the university psychotherapists had a duty to warn Tatiana of the threat that had been made.

Others, including many psychotherapists, were unhappy (to say the least) with the *Tarasoff* decision. Even those who could abide with the idea that physicians *may* disclose a threat objected to the requirement that physicians *must* disclose. For many, that compromised professional autonomy. The difficulties in determining which patients are serious about stated threats and the questions about the required severity of threat (is a broken arm sufficiently serious?) make this requirement an impossibility for them. Some research has shown that predictions of dangerousness are unreliable and that mental health professionals are more likely to be incorrect than correct in making such predictions and usually err in overpredicting dangerousness (Oppenheimer and Swanson, 1990).

The manner in which personal characteristics of the patient might influence physician behavior regarding confidentiality is addressed in the

box, “The Influence of Patient Race, Gender, and Sexual Preference on Maintenance of Confidentiality.”

### **OBLIGATION TO TREAT PATIENTS WITH HIGHLY CONTAGIOUS DISEASES**

An intriguing question related to the responsibilities of medical professionals relates to their duties with regard to treatment of patients with contagious diseases. The manner in which their responsibilities are defined make an important statement about professional obligations, duty to individual patients and society, and duty to self. Any disease epidemic can raise these issues (as occurred with SARS and with several recent influenza outbreaks), although the discovery of the HIV/AIDS virus in the early 1980s dramatically raised these issues and led to serious conflict of perspective. This section summarizes some of the key arguments in this debate about professional obligation to treat patients with HIV/AIDS and other contagious diseases.

#### **Physicians’ Perceptions Regarding the Obligation to Treat**

In the decade after AIDS came to public attention, much research showed that a sizable percentage of physicians did not wish to treat AIDS patients and did not believe that they had a professional obligation to do so. For example, Link et al. (1988) surveyed medical and pediatric interns and residents in seven New York City hospitals with large AIDS patient populations. While only 11 percent of respondents were moderately or extremely resentful of having to care for AIDS patients, 25 percent stated that they would not continue to care for them if given a choice. Moreover, 24 percent believed that refusing to care for AIDS patients was not unethical; 34 percent believed that house officers should be allowed to decide for themselves whether to treat AIDS patients; and 53 percent believed medical students should be offered

treatment choice. In a national survey of family physicians, 62.9 percent stated that physicians have a right to refuse to care for a patient solely because he or she is infected with the AIDS virus (Bredfeldt et al., 1991).

#### **Historical Perspectives on the Obligation to Treat**

Does history offer a clear picture as to how physicians in earlier times viewed the issue of obligation to treat contagious diseases? Yes, but a consistent tradition does not exist. Zuger and Miles (1987) found no such tradition in earlier epidemics such as the Black Death (Europe, thirteenth century), the Great Plague of London (seventeenth century), and yellow fever (United States, eighteenth century). Many physicians fled from patients with contagious disease and cities with a large disease population, but many others, often at considerable personal risk, remained to care for these patients.

#### **Laws Pertaining to the Obligation to Treat**

Several legal principles do pertain to the issue of treatment obligation. George Annas summarizes the basic concept of legal obligation to treat:

American common law is firmly grounded on notions of individual liberty and economic freedom that support the proposition that absent some special relationship, no citizen owes any other citizen anything. As applied to the practice of medicine, the general rule, sometimes denoted the “no duty rule,” is that a physician is not obligated to treat any particular patient in the absence of a consensual doctor-patient relationship. In the absence of a prior agreement or a statutory or regulatory prohibition, physicians (like other citizens) can, in deciding whether to accept patients, discriminate among them on the basis of all sorts of irrelevant and invidious criteria; from race to religion, to personal appearance and wealth, or by specific disease, like AIDS. (1988:26)

The “special relationship” referred to in the quotation pertains to the obligation to treat of emergency room physicians, physicians in an

ongoing doctor–patient relationship, and physicians with a contractual obligation (e.g., through a health care institution or insurance plan).

### Medical Codes

**Hippocratic Oath.** It is unclear as to whether the Hippocratic Oath specifies any legal obligation to treat. A line in the oath, “into whatsoever houses I enter, I will enter to help the sick,” has been interpreted by many to be stating a prescribed duty of physicians, one “neither abrogated or attenuated by incapacitating or terminal disease, nor by the assumption of personal risk” (Kim and Perfect, 1988:136). On the other hand, some contend the line attaches only very loosely to “obligation to treat” and does not offer sufficient detail to clarify a complex matter like treating AIDS patients.

**The AMA’s Code of Medical Ethics.** The official position of the AMA on obligation to treat has evolved through the years and has undergone important transformations. In constructing its first code of medical ethics in 1847, the AMA broke from existing medical codes by establishing a duty to treat: “. . . and when pestilence prevails, it is the [physician’s] duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives” (Jonsen, 1990:161).

This phrase notwithstanding, a revision of the Code of Ethics in 1912 included the addition of the statement that “A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve” (Judicial Council of the AMA, 1986).

Over the last 50 years, the AMA code has been revised on several occasions, sometimes emphasizing the “**duty to face danger**” phrase and sometimes the “**free to choose**” phrase. A 1986 attempt to reaffirm the profession’s long-standing role in treating contagious patients while simultaneously offering physicians a method of exemption (e.g., if they were not emotionally able to care for AIDS patients) satisfied some but also engendered some backlash. In critical response, the American College of

Physicians and the Infectious Disease Society of America issued a joint statement that proclaimed that “denying appropriate care to sick and dying patients for any reason is unethical” (Health and Public Policy Committee of the ACP and IDS, 1986). Public opinion strongly supported the “duty to treat” position (Wallis, 2011). A year later, in December 1987, the AMA issued another position paper, clearly shifting its emphasis toward the duty to treat AIDS patients.

The AMA leadership appears to be caught in a dilemma. On the one hand, there seems to be recognition that it is inappropriate for physicians to refuse treatment to AIDS patients or patients with other contagious diseases simply on the basis of that diagnosis and that an obligation to treat represents a more respectable professional standard. Criticism, especially from inside medicine, has not gone unnoticed. On the other hand, the free-to-choose tenet also has a long tradition in medicine and is clearly very important to many physician members of the AMA.

This dilemma may explain the frequency of revised statements and even the current situation. For although the current statement offers emphatic support for treatment, AMA (American Medical Association, 2013b) leaders have made it clear that any physician who wishes not to treat AIDS patients can label himself or herself incompetent to treat, and the AMA will pro forma accept the excuse.

George Annas, a professor of health law, concluded that “In effect, this reduces the AMA’s position to a statement that a doctor *must* treat an AIDS patient if the doctor *wants* to treat an AIDS patient” (Annas, 1988:S30).

### Rationale for No Obligation to Treat

A key aspect of the philosophical underpinning of the “no-obligation” position is that physicians ought to be free to select their patients. Part of the traditional autonomy of a career in medicine lies in not being told which patients must be seen. In the early years after HIV/AIDS discovery, many physicians explicitly stated that they

wished to exercise this freedom of selection by excluding AIDS patients.

On what grounds could AIDS patients be excluded? Ezekiel Emanuel (1988), an M.D. in Harvard's Program in Ethics and the Professions, has identified four factors that have been used as specific justifications for no obligation to AIDS patients.

**Excessive Risks.** Unquestionably, many physicians are fearful of contracting HIV from patients. Studies in the 1980s routinely found between one-third and one-half of medical residents reported moderate to major concern about treating HIV/AIDS patients. Almost half of the physicians surveyed by Taylor and her colleagues (1990) said they were more frightened of contracting AIDS than any other disease. Those who perceived the greatest risk were most likely to believe in the no-obligation position. Response to treating AIDS patients was influenced by the physician's stage of career and setting. Medical residents—who then provided a significant amount of care for AIDS patients but without having any choice—were more likely than medical faculty and medical students to report fear of exposure to AIDS and an unwillingness to treat AIDS patients (Yedidia, Barr, and Berry, 1993).

These results assess subjective state—the fear of or concern with contracting AIDS. These perceptions are crucial because physicians, as well as others, behave on the basis of what they perceive to be real. Based on experimental studies, the Centers for Disease Control and Prevention estimates that the risk of HIV infection and AIDS after a single accidental exposure to HIV at work (most likely through an accidental puncture wound) is 0.5 percent (1 in 200) or less.

Were the concerns and fears expressed by physicians unreasonable, given these documented levels of risk? Many suggest that physicians overreacted to the possibility of risk and should have recognized that their own behavior (e.g., extreme carefulness in avoiding punctures) would diminish the likelihood of transmission. However, a commentary in the *Journal of the American Medical Association* took the opposite

point of view and condemned efforts to reduce the perceived risks of infection by emphasizing “low” transmission rates. Gerbert and her colleagues (1988) asked what is meant by “low” when discussing a condition that is always fatal, and one that can be contracted regardless of the physician's carefulness and other infection control measures. Among their recommendations for dealing with the fear felt by many health care professionals was acknowledgment that risk does exist and that concern is warranted.

**Questionable Benefits.** A second rationale for no-obligation pertained to the lack of long-term benefits in treating AIDS patients that was perceived at the time. “After all, he (she) is going to die anyway, why bother?” Physicians are not obligated to provide unnecessary useless care, and some procedures (e.g., cosmetic surgery on a dying patient) could hardly be said to be ethically obligatory. Moreover, advances in drug therapy in the late 1990s and early 2000s now enable those with AIDS to survive much, much longer with the disease.

**Obligations to Other Patients.** Third, obligation to other patients was used as a rationale for the no-obligation position. The argument was that, by treating AIDS patients, the physician risked contracting AIDS, which would make it impossible to care for her or his other patients. Moreover, other patients might discontinue their relationship with the physician when they learn he or she is seeing AIDS patients. One survey reported that 40 percent of a sample of family practice physicians feared that they would lose some patients if they found out that AIDS patients were also being seen in the office (Bredfeldt et al., 1991).

**Obligations to Self and Family.** Refusing to treat an AIDS patient on the ground that his or her medical care is not worth jeopardizing the physician's life or health is a perception that was held by some physicians. Some critics have asked whether this position was bolstered by an implicit (or explicit) judgmental process about the relative value of the individuals involved.

That is, were physicians more likely to feel this way because many of their patients were gay or injectable drug users?

Later research indicated that the answer is yes. A study of matriculating medical students in Chicago found that 92 percent would welcome HIV patients into their practice, but that homophobia and fear of infection were the most common explanations for those who would not (Carter, Lantos, and Hughes, 1996). Research on preclinical medical students also found largely favorable attitudes toward treatment but found that students uncomfortable with homosexual behavior and feeling awkward about taking a sexual history from gays were least willing to treat (McDaniel et al., 1995). Finally, a study that compared attitudes of students in their fourth year of medical school and again as third-year residents determined the strongest predictors of change in attitudes for those whose willingness to treat declined were homophobic attitudes and aversion to IV-drug users (Yedidia, Berry, and Barr, 1996).

Two other considerations emerged from studies. First, some physicians worried that treating AIDS patients carried financial liability. Physicians not treating AIDS patients were more likely to believe that these patients are a financial risk to a practice, that they would drive away other patients, and that they create considerable legal liability. Second, some physicians expressed considerable fear that they might unknowingly contract HIV and transmit it to their own spouse and/or children. Consideration of this rationale may come down to two questions: Do physicians' spouses and families need to expect to share in some risks of the profession? Are the risks so great as to overcome whatever professional rationale exists for treating AIDS patients?

### Rationale for Obligation to Treat

While historical traditions, laws, and medical codes offer a perspective on the obligation to treat position, often they do not articulate the underlying philosophical principles on which it is based. Recently, medical practitioners,

philosophers and ethicists, lawmakers, and social scientists have reflected on reasons why there may be an obligation to treat. Three such principles are described here:

**The Nature of the Profession.** Perhaps the firmest principle on which to base an obligation to treat is the inherent nature of the profession of medicine. Professions represent special statuses; typically, they involve more training and greater commitment than other careers and are rooted in a special ideal of service to others. Emanuel traces a duty to treat to the nature of the profession:

The objective of the medical profession is devotion to a moral ideal—in particular, healing the sick and rendering the ill healthy and well. The physician is committed to the help and betterment of other people—“selflessly caring for the sick,” as the president of the American College of Physicians has put it. When a person joins the profession, he or she professes a commitment to these ideals and accepts the obligation to serve the sick. It is the profession that is chosen. The obligation is neither chosen nor transferable: it is constitutive of the professional activity. (1988:1686)

According to this viewpoint, making distinctions among the sick based on the type or nature of the disease is contrary to the ideal of the profession. The noble dimension of this professional duty is treating all patients—especially the most vulnerable—without making these distinctions.

It is largely this factor that led the U.S. Supreme Court to rule that health care workers cannot refuse treatment to individuals with HIV/AIDS. The justices contended that the objective and reasonable view of health care professionals is that there is minimal risk in treating AIDS patients and that a contrasting judgment of an individual physician is not sufficient to override the obligation not to discriminate by nontreatment.

**The Social Contract.** The second principle used to support obligatory treatment rests on the implicit **social contract** made between society and the medical profession. This rationale states that physicians have an obligation to treat the sick and vulnerable in exchange for the

discretionary powers they have been given over the clinical practice of medicine. Potential danger in doing so does not exempt the physician from fulfilling this obligation any more than it exempts a police officer or firefighter (Arras, 1988).

Fulfillment of this reciprocal obligation, however, can be viewed in two ways. One interpretation is that it creates an obligation on the part of each physician to treat those in medical need and not to shun those with particular diseases. After all, the argument goes, every physician benefits from the control physicians have over medical practice. For any physician to treat only those individuals whom he or she has selected would be a failure to perform the expected reciprocal obligation.

A second view posits that the obligation to care for the sick is attached to physicians in general, but not necessarily to individual physicians. According to this view, the reciprocal obligation is fulfilled as long as there is a sufficient number of physicians to care for the sick—specifically, here, to treat AIDS patients—even if not every individual physician participates (Arras, 1988).

This latter interpretation is consistent with a voluntaristic system in which only willing physicians treat people with AIDS. The idea is appealing in the sense that AIDS patients might expect the most compassionate care from those freely choosing to offer treatment. But the downside is that it could place an unfair burden (in terms of risk, stress, etc.) on those willing to offer treatment (Arras, 1988).

**The Dependent Patient.** A third justification is that physicians are linked to patients in ways that extend beyond an explicit or implicit contract. According to this view, there is

something unique about the physician–patient relationship. It takes on a moral dimension especially in cases of a **dependent patient** in need of the professional’s services.

This responsibility is even more compelling given the physical and emotional suffering endured by AIDS patients. Peter Conrad (1990) and others have written about the “marginal” place in which society often places AIDS patients and the severe stigma still attached to the disease. Although it is now clear that AIDS knows no sexual preference boundaries, the fact that the disease was first reported to be a disease of homosexuals (it was called the “gay plague”) created a lack of empathy, and sometimes even blatant hostility and disregard, for those with the virus.

Siegel and Krauss (1991) studied the major challenges of daily living experienced by 55 HIV-positive gay males. One of the three major adaptive challenges they reported was dealing with reactions to a stigmatizing illness. They talked openly in focused interviews of their feelings of shame and contamination based on the way others interacted with them. Even deciding whom to tell of their infected status was a difficult decision knowing that many would respond negatively. Those who speak of a special relationship between physician and “dependent” patient find no better example than that of a physician working with AIDS patients. Many physicians who care for HIV-infected individuals do find their work rewarding and stimulating. In one study, 60 percent of physician respondents noted patient gratitude for their work, 57 percent mentioned the intellectual challenge of dealing with the disease and well-informed patients, and 30 percent identified a desire to serve the underserved (Epstein, Christie, and Frankel, 1993).

## SUMMARY

Much can be learned about the dynamics of the physician–patient relationship by examining the manner in which the issues of truth-telling, confidentiality, and the obligation to treat AIDS patients are handled. Surveys consistently show

that the vast majority of people want physicians unconditionally to tell the truth, but many physicians (though fewer than in the past) still use their discretion in deciding whether or not to tell the truth to individual patients.

Those who support unconditional truth-telling justify their position by stating that only truth-telling displays real respect for the patient; that it is necessary to keep promises; that lying would undermine the patient’s trust in the physician; and that patients need to know the truth to be able to make decisions on an informed basis. Those who believe that physicians should use their discretion argue that it might be in the patient’s best interest; that it is impossible to communicate the “full truth” to a medical layperson; and that many patients really do not want to know the truth about a serious illness.

While most medical codes emphasize the importance of protecting confidentiality, some justify breaking confidentiality in order to protect the patient or an innocent third party (such as in the case of Tatiana Tarasoff) or society in general. Others believe that confidentiality ought always be maintained in order to protect

the patient’s autonomy, legitimate secrets, keep faith with a patient, and encourage people who need help to feel free to seek it.

Research has shown that, at least in the early years of AIDS, many physicians preferred not to treat AIDS patients. While neither history nor medical codes offer a decisive position on the existence of a “duty to treat,” many believe that physicians should not be compelled to offer care to AIDS patients for four reasons: (1) excessive risks, (2) questionable benefits of treatment, (3) obligations to other patients, and (4) obligations to self and family.

Those who believe there is a treatment obligation cite three reasons: (1) It is an inherent part of the nature of the profession, (2) it is part of a social contract between society and medicine, and (3) the “special” physician–patient relationship calls for physicians to offer care to dependent patients.

## HEALTH ON THE INTERNET

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You can research the latest ethical policies of the AMA on issues covered in this chapter by accessing the Code of Medical Ethics at:

[www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics.page?](http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics.page?)

Click on “Principles of Medical Ethics.” What are the emphases of these nine principles? What rights are patients given in these principles?

Go back to the “Principles.” Click on “Opinions of the Physician–Patient Relationship.” What responsibilities are assigned to physicians within these opinions?

Go back to the “Principles.” Click on “Opinions on Professional Rights and Responsibilities” and then click on “Racial and Ethnic Health Care Disparities.” What are the important messages being communicated to physicians in these items?

## DISCUSSION CASES

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**Case 1 Scenario 1:** A 35-year-old female, unmarried and without children but with parents and three sisters in a neighboring state, is diagnosed as having cancer. By the time of diagnosis, the cancer has already spread throughout her body. It is too late to perform surgery, and her physician determines that neither chemotherapy nor radiation can be successful at this advanced stage. Patients diagnosed with cancer at this stage rarely live more than a year.

The physician knows that the patient has been working on her first novel for two years and that it has been the major interest in her life. The patient expects to have it completed in the next three or four months. The physician believes he can stall giving the correct diagnosis and prognosis, through deception and evasive answers, until the patient has completed her novel. He fears that providing the honest diagnosis at this point will so depress the patient that she will not be able to finish the

book. The physician and patient have never discussed how a situation like this should be handled.

How would the physician–patient relationship be affected by a general expectation of unconditional truth-telling versus an expectation that physicians ought to use their discretion in revealing information to patients? How do these two expectations affect the physician’s role in the encounter, and how do they affect the patient’s role? In this case, do you believe the physician ought to provide this patient with the correct diagnosis and prognosis or attempt to deceive her until her novel is completed?

*Scenario 2:* Alter the preceding scenario in this manner: On the day before the patient is to return to the office to hear the test results, her parents call the physician long distance. They explain that they are calling out of love and concern for their daughter and due to a fear that she has cancer or some other life-threatening disease. If that is the case, they plead for the physician not to reveal the diagnosis. Their understanding of their daughter leads them to believe that hearing the correct diagnosis will so traumatize her that she would quickly give up the will to live.

Should the physician be influenced by the wishes of the family and attempt to deceive the patient, or should he be sympathetic with the family but make it clear he must be honest with their daughter? What does his decision imply about the role of significant others in the care of patients?

*Scenario 3:* Same case as before, but omit the information in scenario 2. Add the following

circumstance: On the day of her return visit, the patient initiates conversation with the physician. She expresses her fear that she has a life-threatening disease. If that is the case, she says, she would rather not know it. She states that she would rather avoid hard and fast reality, believing that would give her the best opportunity to complete her novel and carry on as normally as possible for as long as possible.

What does the physician do? Do patients have a right to make this request of physicians? If they do, ought physicians comply with the expressed wishes of the patients or explain that the physicians’ responsibility is to convey as accurately as possible what has been learned?

**Case 2** The State Medical Board in your home state is considering a new regulation that would strictly forbid any physician to refuse to accept a patient or to refuse to continue seeing a patient (whom he or she is qualified to treat) solely on the basis that the patient is HIV-positive or has AIDS. Suspected violations of this policy would be investigated by the State Medical Board, and a hearing would be held. If convicted of violating this regulation, a physician would lose his or her medical license for six months, for a first offense, one year for a second offense, and permanently for a third offense.

Knowing that you have taken a course in medical sociology and have a keen interest in this subject, the board has called you to testify about this proposed regulation. Would you testify in favor of or against this proposal? What is the rationale for your testimony?

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## CHAPTER 14

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# *The Health Care System of the United States*

### Learning Objectives

- Describe and discuss evaluative ratings of the pre-Affordable Act, U.S. health care system.
- Describe the foundation and origin of the private nature of the U.S. health care system and the entry of public programs such as Medicare and Medicaid.
- Describe and evaluate the managed care approach that was developed to control rapidly increasing health care costs.
- Identify and explain five key reasons for the high cost of health care in the United States.
- Describe the pre-Affordable Care Act “uninsured” problem in the United States. Discuss the problems associated with not having health insurance.
- Thoroughly analyze The Affordable Care. Describe how it changes the U.S. health care system, who most benefits from it, and political perspectives about the law.

America’s health care system is undergoing one of the most significant transformations in its history. After extensive health care policy debates of the 1990s and 2000s, significant health care reform legislation (The Patient Protection and Affordable Care Act—now routinely identified as The Affordable Care Act) was passed in 2010. Almost all of the legislation survived constitutional challenges in 2012 and 2013. Both implementation of the Act and efforts by congressional Republicans to overturn passage or strike down parts of the Act continue.

Prior to The Affordable Care Act, almost all knowledgeable analysts agreed that the U.S. health care system, at its best, was an innovative system that provides effective, high-technology care that is among the world’s finest. At the same time, the health care *system* is generally recognized as being extremely expensive, inefficient and wasteful, grounded in profit making, and has tens of millions of Americans lacking the resources to obtain basic care. This chapter

describes the health care system of the United States up until reform legislation was passed in 2010, including the serious fiscal crisis of the system and its inability to provide care for all in need, and examines the health care reform process and resulting legislation.

### RATING THE U.S. HEALTH CARE SYSTEM

#### Based on Systematic Analysis

In the first decade of the 2000s, a major research effort was undertaken to systematically evaluate the overall quality of the U.S. health care system (Schoen et al., 2006). The Commonwealth Fund (CF) is a respected, private, nonpartisan foundation that seeks to promote a higher quality medical care system. In 2006, the CF initiated an annual review of 37 important indicators of the functioning of the health care system. The five general focus areas were health outcomes, quality, access, efficiency, and equity. Specific

indicators included items such as number of deaths from preventable disease, number of school days children miss due to illness, life expectancy, percentage of physicians who use electronic records, and percentage of national health expenditures that go for administrative costs. Performance of the U.S. system was compared to benchmarks from within the country and with health care systems in other countries.

Ultimately, based on a 100-point scale, the performance of the U.S. health care system was calculated as being 66 (by 2011 the score had dropped to 64). On no indicator did the U.S. system function as well as the top performers, and in some cases performance was far behind the leaders. It was calculated that by improving performance on key indicators, the United States could save as many as 150,000 lives and up to \$100 billion annually. Study leaders summarized:

The overall picture that emerges from the scorecard is one of missed opportunities and room for improvement. Despite high expenditures, the United States lags behind other countries on indicators of mortality and healthy life expectancy. Within the United States, there is often a substantial spread between the top and bottom groups of states, hospitals, or health plans as well as wide gaps between the national average and top rates . . . On multiple indicators, the United States would need to improve its performance by 50 percent or more to reach benchmark countries, regions, states, hospitals, health plans, or targets. (Schoen et al., 2006:472)

### Based on Consumer Attitudes

Prior to reform, were Americans generally satisfied or dissatisfied with the health care system? Was there a propensity to defend the system or had conditions reached a point where there was significant unhappiness? Many surveys have been conducted during the last several decades, and they have consistently pointed to increased consumer dissatisfaction with the U.S. health care system.

One consistent finding has been that most Americans made a distinction between the quality of the personal care that they receive and the quality of the health care system. While most

have been satisfied with their own care, they have been frustrated, angry, and disappointed with the functioning of the health care system. Fewer than four in ten respondents in surveys have expressed a great deal of confidence in the nation's medical care system, and most have had higher regard for other social institutions (e.g., the legal system and the education system) (Blendon et al., 2006).

In a 2006 survey, only 13 percent of Americans reported that the health care system works pretty well and only minor changes are needed to make it work better, 49 percent saw the system as having some good features but believed fundamental changes were needed, and 37 percent believed the system had so much wrong with it that it needed to be completely rebuilt (Harris Interactive Poll, 2006). This negative assessment of the health care system has been found consistently for more than two decades.

The question becomes how and why has the United States developed a health care system that is fundamentally different than that in all other countries and is by far the world's most expensive system yet one that objectively and subjectively is rated so unfavorably?

## THE U.S. HEALTH CARE SYSTEM

### The Foundation of the Health Care System

The foundation of today's U.S. health care system largely originated in a series of events that occurred between 1850 and the early 1900s. Advances in the scientific understanding of disease and illness and in the effectiveness of medical procedures, the expansion and elaboration of hospitals, and the growth of commercial health insurance companies contributed to an increasingly complex system of health care delivery and financing. The professionalization of medicine, the establishment of high standards for medical education, and the institution of medical licensure contributed to significant autonomy for medical providers, increasing medical fees, and greater difficulty for those with fewer financial resources to access needed care.

Since these early years, America's health care system has been based on a "private market" approach. This means that the system was allowed to function based on private decisions made by medical facilities, medical providers, and patients without government involvement or intervention. The rationale for the private market approach is that the competition for resources—profit—would be the strongest possible motivator for individuals and companies to work their hardest and to do their best. The laws of supply and demand that functioned in other areas of the economy were considered appropriate also for the health care system.

This approach assumes that the most equitable means of allocating health care is through the private market. Health care is to be viewed as an economic good or a privilege that would be most accessible by those with the greatest resources. Proponents contend that this competitive basis has stimulated the drive for the development of superior medical schools, new medical technologies, and the highest quality of health care possible.

Many countries around the world used a similar approach early on but later converted from it. While the United States maintained strong belief in the principle of individualism, other countries showed a greater collective orientation and stronger commitment to the general welfare of the people. Over time, other countries determined that a private market approach was unsuccessful with regard to health. They observed that the health care system did not follow basic rules of supply and demand, that many people were unable to access health care services, and that the health care system was not functioning as effectively or justly as was desirable.

In fact, all other modern countries in the world today emphasize a "social justice" approach. They identify health care as a "right" that should be made available to everyone rather than an economic good or privilege. They believe that the government is more effective than the private market in allocating health care equitably and ensuring that no one go without needed health care services.

## The Development of Private Health Insurance

Although private health insurance companies began appearing in the mid-1800s, they really became the cornerstone of health care financing in the United States in the early 1900s. Initially, they provided compensation for workers who were losing wages because they had been injured on the job or had gotten sick. During the early 1900s—the time when medicine was professionalizing and hospital care was growing in importance—private insurers saw potential in selling health insurance policies. Quickly, they became a crucial element in paying for health care.

Today, there are almost 1,300 **private (commercial) health insurance companies** in the United States. Some of these companies offer only health insurance while others also offer life, homeowners, renters, and automobile insurance. These are profit-making companies whose intention is to set premiums at a level that will allow them to pay out all claims; pay for all administrative, salary, and overhead expenses; and have money left over for profit for investors.

Health insurance policies are sold to individuals, families, and groups (usually businesses). It is often said that no two health insurance policies are exactly alike—they cover whatever the buyer negotiates. They may include basic health benefits, benefits for very large bills, income replacement during disability, and benefits for dental care, eye care, drugs, and so forth. In addition to the basic premium, policies usually have a *deductible* provision (the policy owner pays a set amount of money before the insurance kicks in) and *coinsurance* provision (the policy owner pays a set percentage of all costs beyond the deductible) and *co-payments* (specific fees paid out of pocket for particular services such as \$20 for each visit to a primary care physician beyond what the insurance pays).

In the United States, health insurance became a benefit provided by employers to workers and their families. This arrangement was considered to be consistent with the private market approach. It gave individuals an additional incentive to have a job and work hard and it gave

employers an extra mechanism to recruit and retain good workers. Because they represented lots of workers and families, employers could purchase sizable policies which gave them leverage to negotiate a good rate. Insurance companies competed with each other for sales—this gave them an incentive to be efficient.

Thus was the advent of a private market, employer-based health insurance system. Individuals and families without employer-sponsored health insurance, but with sufficient wealth, could purchase their own policies. Those without coverage and without adequate financial resources would not be able to access the system, but this was seen as an acceptable result for people who had not successfully competed in the job world. Health insurance companies, pharmaceutical companies, medical equipment companies, some hospitals, and a variety of other health services became part of the private market designed to be profit making.

### The Development of a Nonprofit Health Insurance Alternative

By the late 1920s and the Depression, it was apparent that millions of individuals were not in the labor force through no fault of their own, and they certainly were unable to afford private health insurance. Their need for health care services was high, but they lacked ability to pay for the services. Hospitals often provided care but did not get paid. To offer a more affordable alternative to the for-profit companies, Blue Cross [later Blue Cross-Blue Shield (BC-BS)], a nonprofit health insurance company, was created in 1929. In exchange for its nonprofit status (and exemption from paying taxes), the BC-BS plans offered comprehensive policies to a wide range of individuals at prices often measurably below those of commercial companies. This approach was enormously successful, and throughout much of the twentieth century, the health insurance field was dominated by BC-BS. However, in the 1990s, the “Blues” determined that their nonprofit status did not serve them well in the changed health care system, and most BC-BS plans (now with a

variety of company names) around the country converted to a for-profit basis.

### The Entry of Public (Government-Sponsored) Health Insurance

In the 1960s, the United States experienced considerably heightened awareness about the extent of poverty and the fact that many individuals—adults and children—were in very poor health yet unable to afford medical care. Many analysts believed that the private market had failed to function effectively with regard to health care and advocated for increased public (government) involvement in the health care system. They pointed out that public programs are often created to serve those whose needs are not being met by the private sector. Among the many health programs that were already supported by public dollars even before The Affordable Care Act were those for members of the armed forces, veterans, mothers and children, Native Americans, schoolchildren, and the disabled.

By the 1960s, the two groups who seemed most unable to access services in the private market were (1) older persons who were retired and trying to live on Social Security and perhaps a small pension, and (2) very low income persons who frequently worked at jobs that did not offer employer-sponsored health insurance. Presidents Kennedy and Johnson formulated legislation that led to the passage of Medicare (largely for those 65 and older) and Medicaid (largely for very low income persons) in 1965. These have become by far the largest government-sponsored health insurance programs.

**Medicare.** Medicare is a federal insurance program originally designed to protect people 65 years of age and older from the rising costs of health care. In 1972, permanently disabled workers, their dependents, and people with end-stage renal disease were added to the program.

The two key long-standing parts to the program are the hospital insurance program (Part A), which covers inpatient hospital services, skilled nursing services, home health services, and hospice care, and the physician

services program (Part B), which covers physician services, outpatient hospital services, and therapy. All persons age 65 and older are eligible for Part A simply by enrolling, although there are deductible and coinsurance provisions. A premium must be paid for participation in Part B, which also includes a deductible and coinsurance. Medicare is financed by a combination of general tax revenues and payroll taxes levied on employers and employees in addition to the enrollee payments.

Historically, Medicare has not contained any coverage for prescription drugs—a very serious omission. That led many seniors (perhaps as many as one-fourth of those age 65 and older) to forego getting needed prescriptions filled. As the price of medications skyrocketed, the problem became more severe. In 2003, Congress added a hotly debated and very narrowly passed prescription drug benefit (Part D) to Medicare. Using a complex formula, enrollees in the drug benefit have a deductible (\$250), a monthly premium (\$35), and a co-payment (25 percent up to \$2,250); pay all costs between \$2,250 and \$3,600; and then pay a different, smaller co-payment as Medicare primarily foots the bill. The opponents of the bill were primarily those who felt the bill did not go far enough and did nothing to control drug price increases. The payment formula was so complex that the bill was widely regarded (even by most Medicare enrollees) as a bad law.

In 2011, Medicare covered 48.8 million people (about 16 percent of the U.S. population) at a cost of more than \$554 billion annually. Medicare alone accounts for just over one-fifth (20.5 percent) of all health dollars spent in the United States.

**Medicaid.** Medicaid is a jointly funded federal-state program designed to make health care more available to the very poor. Eligibility requirements and program benefits vary from state to state, even though the federal government requires that people receiving certain types of public assistance (as well as pregnant women, children under age 6, Medicare enrollees, and recipients of foster care and adoption

assistance not covered by other programs) be eligible for the program.

Federal and state funds paid through Medicaid for personal health care amounted to more than \$438 billion for 70.4 million recipients (about 23 percent of the U.S. population) in 2011. (However, it is possible to receive Medicare and Medicaid simultaneously, and about 11 million persons did so in 2011. Thus, the total number of Medicare and Medicaid enrollees in 2011 was 108.7 million.)

The elderly, blind, and disabled account for nearly three-fourths of Medicaid funds, even though they represent less than one-third of recipients. On the other hand, more than two-thirds of Medicaid recipients are members of a family receiving public assistance, but they use only one-fourth of program benefits. More than 15 percent (15.1) of national health expenditures in the United States come from Medicaid.

The Medicare and Medicaid programs are examples of “entitlement” programs. This means that people receive benefits automatically when they qualify for the programs (in the case of Medicare-Part B, qualifying includes payment of a premium). The number of people covered is determined primarily by the number of people 65 years of age and older for Medicare and by the number of people below a designated income/assets line for Medicaid. The government thus has little control over the number of participants and has limited ways to control costs.

Eligibility requirements can be tightened, but more than half of all persons under age 65 below the poverty level are already ineligible for Medicaid. Benefits can be reduced, but they are already at meager levels. The reimbursement to providers can be reduced, but compensation from both programs has already been cut. Medicaid reimbursement for primary care physicians is now less than two-thirds of prevailing market rates. In addition, both Medicare and Medicaid are in financial difficulty. Prior to the 2010 reform legislation, it was anticipated that Medicare would go bankrupt within a few years. Most states are having a difficult time balancing their budgets due in part to their Medicaid expenditures.

**Children's Health Insurance Program (CHIP).** A third large public program, although much smaller than Medicare and Medicaid, is the **Children's Health Insurance Program (CHIP)**, formerly known as SCHIP). CHIP was created in 1997 with the objective of reducing the number of children without health insurance. The federal government gives grants to states that pay for about two-thirds of the program, and the state pays for the remainder. In the first ten years of its existence, the percentage of children in the United States without any health insurance decreased from 23 to 15 percent. However, the more successful the program has become in covering children, the more the program costs have increased.

In 2006, some states stopped enrolling additional children in the program. The fact that many children still went without needed medical care was undisputed, but states argued that they could not afford to pay for more. By 2007, about one-third of the states stopped new enrollment, and several threatened to begin disenrolling children already in the program. Congress voted to authorize additional funds so that children already enrolled could stay in the program and additional children in need could be added. At this time, about 9 million children in the United States lacked health insurance. President Bush countered with a proposal that would add only 40 or 50 percent as much as Congress had sought. That laid the groundwork for a very contentious debate.

Most congressional Democrats wanted to significantly increase the allocation to CHIP (adding \$75 billion over five years). A bipartisan group recommended adding \$35 billion over five years. President Bush threatened to veto either approach as being too expensive. Ultimately, Congress voted for the \$35 billion—enough to add 4 million children. Public opinion surveys showed overwhelming support for the bill, but President Bush vetoed it. Congress passed a revised bill—keeping it at \$35 billion but making other revisions. President Bush again vetoed it. In February 2009—less than a month after the election of President Obama—Congress passed a \$33 billion addition to CHIP allowing enrollment of 4 million additional children. President Obama signed it (Oberlander and Lyons, 2009).

### Incentives to Overuse Services

The creation of the Medicare and Medicaid programs (and later, CHIP) have been of tremendous help to those who are covered by them. In many cases the programs mean the difference between receiving and not receiving health care. They have also pumped billions of dollars into the health care system and ensured that many providers would be compensated for services delivered. However, the programs also highlighted a problem with the traditional way that insurers compensated providers.

In the traditional reimbursement method, patients covered by any form of health insurance would see a medical provider and receive a set of medical services. The medical provider would determine the amount to be charged and send a bill to the insurance company, which would remit the amount of the charge. This system lacks cost control mechanisms—no one has an incentive to be cost conscious. Patients often paid nothing for services received and willingly accepted all suggested services. Physicians could charge whatever they wanted and receive full reimbursement. Insurers could pass on higher premiums to those they insured. After the passage of Medicare and Medicaid, the number of services provided to each patient increased and the charges for services rapidly escalated. The period of tremendous growth of the health care system had arrived.

**Provision of Unnecessary Services.** By the early 1980s, compelling evidence had been uncovered that many health care services being provided were unnecessary. Academic researchers and policy analysts had determined that as many as one-sixth to one-fifth of all operations were unnecessary, that the annual cost for these unnecessary operations was in the billions of dollars, and that as many as 12,000 patients per year died in the course of an unnecessary procedure. Table 14–1 shows the increase in overall health expenditures since 1960s.

The most intensive study of surgical necessity was conducted by the Rand Corporation, a think tank in Santa Monica, California. Based

**TABLE 14-1 National Health Expenditures**

Year	Total Amount (\$)	Domestic Product (%)	Amount per Capita (\$)
1960	26.9 billion	5.1	141
1970	73.2 billion	7.1	341
1980	247.2 billion	8.9	1,051
1990	699.5 billion	12.2	2,689
2000	1.3 trillion	13.3	4,670
2008	2.3 trillion	16.2	7,681
2011	2.7 trillion	17.9	8,680

Note: The average medical cost for a family of four in 2012 was \$20,728.

Source: National Center for Health Statistics, *Faststats*, Centers for Disease Control and Prevention, Atlanta, GA., 2013.

on input from medical experts, they developed a list of indicators of the need for four specific procedures. Then they applied this list to the records of 5,000 recent Medicare patients. They found that 65 percent of carotid endarterectomies (removal of blockages from one or both arteries carrying blood to the brain) were unnecessary—so were 17 percent of coronary angiographies (an X-ray technique in which dye is injected into the coronary arteries to diagnose blockages), 17 percent of upper gastrointestinal tract endoscopies (examining the digestive organs with a fiberoptic tube), and 14 percent of coronary bypass surgeries (helping or replacing blocked arteries by adding or rerouting other blood vessels). Other studies with other population groups have also found very high rates of unnecessary surgery for procedures such as Caesarean birth, hysterectomy, laminectomy, tonsillectomy, colonoscopy, spinal fusion, prostate removal, gall bladder removal, hip replacement, and knee replacement.

In response policy makers sought alternative reimbursement mechanisms that would discourage unnecessary procedures and create some cost control incentives. Cost containment strategies and the managed care approach were developed with this in mind.

### Cost Containment

**Cost containment** strategies are an effort to give financial incentives to provide only necessary services and to do so in a cost-efficient manner.

An early example is the 1983 creation of diagnostic related groups (DRGs)—an alternative reimbursement system for the care Medicare patients receive in a hospital. The DRGs are a set of 467 categories intended to include all the ailments or conditions that might be experienced by a Medicare enrollee and an identification of how much the government will pay for that condition. Hospitals receive the predetermined amount for each Medicare patient regardless of actual costs associated with the patient's treatment. If actual costs are less than the allotted amount, the hospital keeps the difference. If the cost exceeds the allotment, the hospital must absorb the loss. Thus, if the reimbursement level for a particular category is \$8,000 and the hospital treats that patient for \$6,500, the hospital keeps the \$1,500 difference. However, if that patient's care costs \$10,000, then the hospital is responsible for the extra \$2,000.

Have DRGs succeeded in encouraging cost consciousness? The average length of stay in the hospital for Medicare patients dropped immediately and substantially after DRGs were implemented and cost savings accrued. However, readmissions to the hospital have increased and are now considered a very serious problem. A possible explanation is that patients who have not fully recovered have been exited too early in order to save money. (Today still, one in five Medicare patients leaving a hospital is readmitted within one month—an unfortunate circumstance for the patient and costly occurrence for the hospital.) Nevertheless, the

basic DRG approach has been extended to some other programs.

A second type of cost containment approach is the recent development of *High Deductible Health Plans (HDHPs)*—a type of health insurance plan that costs less because it incorporates a very high deductible (at least \$1,000 for individuals and \$2,000 for families, although it could be much higher). Typically, this type of plan is linked to a personal (or health) savings account and goes by the name **consumer-driven health plans (CDHPs)**. Health savings accounts allow individuals and families to set aside pretax dollars to pay for health care costs as they arise (and to have this backed up by an insurance policy covering catastrophic situations). Money not used for deductibles and other health care costs in one year can be rolled over until the next year. The cost containment rationale is based on the fact that individuals and families will be paying a large amount out of pocket for their health care before insurance kicks in, and therefore, they will only do so when absolutely necessary. These plans have become increasingly popular and more and more employers are offering it to employees—sometimes as the only health insurance option. However, many analysts believe these programs have limited effect on the lack of access problem in the United States and are especially unsuitable for low-income individuals and families (Bloche, 2007).

### The Development of Managed Care

**Managed Care.** Until The Affordable Care Act, the most significant event within health care financing in the last 30 years was the movement toward **managed care**. Managed care plans go beyond cost containment strategies like DRGs by combining the traditional insurance function of private insurance companies and the government with a delivery system of health care providers. They are and will remain (at least in the near future) a central part of the health care system.

The rationale underlying managed care is that these plans are best in controlling health care cost increases because they oversee patient

behavior, provider behavior, and insurer behavior. Controls are designed to manage or guide the patient care process, ensuring that appropriate, cost-efficient care is provided and that inappropriate and unnecessarily expensive care is not. Originally, managed care provisions were incorporated within traditional health insurance plans, but they have almost completely replaced traditional plans today. Table 14–2 shows the distribution of insured people across types of insurance plans.

How does this control work? There are three essential components. First, a **managed care organization (MCO)** (ownership today is often held by a traditional private health insurance company) recruits medical providers in an area to be part of the MCO. Typically, a physician who joins continues to practice in the same location but understands that some of his or her patients will now be insured by the MCO and that there will be special regulations when treating these patients. The physician also must agree to a lower-than-usual reimbursement amount. Why would physicians or hospitals sign on? Because the MCO is promising lots of patients and warning that these patients will go elsewhere unless the provider agrees to join.

Second, the MCO recruits patients. Very often, this means contracting with local

**TABLE 14–2** Distribution of Employees Across Health Benefit Plans

Type of Plan	1990 (%)	2000 (%)	2009 (%)
Conventional	62	8	4
Health maintenance organization	20	29	19
Preferred provider organization	13	42	44
Point of service	5	21	36
High deductible	0	0	12
<b>Total managed care</b>	<b>38</b>	<b>92</b>	<b>96</b>

Source: Reprinted with permission from the Henry J. Kaiser Family Foundation, 2009a. The Kaiser Family Foundation based in Menlo Park, California, is a nonprofit, private operating foundation focusing on the major health care issues facing the nation and is not associated with Kaiser Permanente or Kaiser Industries.

employers to cover all of their employees. If the employer signs on, patients will be encouraged to see only providers who are part of the MCO, and they also agree to abide by special regulations. Why would an employer contract with a particular MCO? Because the MCO is guaranteeing the best deal—the most services covered for the least amount of money (the facts that providers are accepting a lower reimbursement and that patient behavior will be regulated enable a good deal to be offered).

Third, the MCO will construct the list of providers, the cost per service, and the “special regulations.” What might these regulations be? They can include a requirement to see a primary care physician before a specialist for a care episode, preadmission review for all elective hospital admissions, mandatory second opinions before surgery, continued review of patient care during hospital stays, discharge planning, and alternative benefit coverage (such as ambulatory surgery, home health care, and skilled nursing facility care). In the case of preadmission and continued review of hospital stays, a physician (or his or her nurse or assistant) will call the MCO to have a nurse reviewer verify the admission and report the expectations (e.g., length of stay) of the insurance company. Failure of the physician or hospital to stay within the limits jeopardizes full reimbursement. Renegotiation can occur while the patient is in the hospital. In addition, almost every service covered will include a coinsurance or co-payment. This is to give patients an added incentive not to overuse services.

### Types of Managed Care Organizations.

There are two main types of MCOs: health maintenance organizations (HMOs) and preferred provider organizations (PPOs). A third option is the point-of-service (POS) plan.

**Health maintenance organizations (HMOs)** are *prepaid* plans in which a group of physicians and hospitals provide health care in return for a fixed premium from enrollees. HMOs are responsible for providing a stated range of health care services (typically, a minimum of ambulatory and hospital care, dental

care, medications, and laboratory tests) that must be available 24 hours a day. These services are typically provided by a subset of a community’s providers who contract with the HMO and accept a lower reimbursement level and some guidelines to follow in exchange for a promise of patients.

There are three primary differences between HMOs and traditional private insurance plans. First, in a traditional plan, the provider is reimbursed after a service is provided. The more services provided, the more the provider makes. In HMOs, physicians typically are compensated on a “capitation” basis—that is, based on the number of patients they are willing to see and not on the number of services provided. Thus, traditional financing arrangements have built-in incentives for providers to do more tests and procedures in order to maximize income, while HMOs have incentives to reduce the use of services. HMOs maximize profit by keeping people healthy (they stress wellness and prevention) and by discouraging inappropriate use of costly physician and hospital services.

Second, with private health insurance, the patient has complete freedom to select any available provider. HMO enrollees must select from the list of providers who have contracted with the HMO, so there is less freedom to choose one’s provider.

Third, both providers and patients agree to all of the HMO’s regulations for each care episode.

While there are other differences, many patients view enrollment in an HMO as a willingness to accept some regulations on care and sacrifice some choice in provider in order to pay lower health care costs. Although numbers vary considerably from community to community, on average, HMOs save patients approximately 10 to 20 percent in expenditures.

Ownership of HMOs remains highly diversified, but the clear trend is toward for-profit models. Growth in ownership has been fastest among commercial health insurance companies like CIGNA, Aetna, and Prudential. More than two-thirds of HMOs are now controlled by for-profit companies, and some predict that the figure will eventually be 100 percent.

Do HMOs offer high-quality care? Are patients and physicians satisfied with their experiences? The answer to both questions is that it depends on the particular HMO. Analysis of several studies comparing HMO participation with traditional insurance plans has determined that, in general, HMO enrollees receive more preventive care, have the same or slightly more physician visits, receive fewer expensive tests and procedures, have lower hospital admission rates, have a shorter length of stay when hospitalized, have less use of costly technology, and have mixed but generally better health outcomes (Wholey and Burns, 2000). However, significant variations in the provision of services exist among HMOs.

The most heated controversy surrounds the issue of whether HMOs are apt to deny needed services in order to maximize short-term profit. Recall that in managed care, profit is maximized (at the least in the short term) when expensive services are not performed, and some HMOs have developed explicit incentive systems that could easily discourage physicians from ordering services. For example, some HMOs have given telephone clerks (people typically with little or no medical training who answer phone calls from patients wanting to make an appointment) cash bonuses for keeping calls short and limiting the number of appointments that they make. Many HMO enrollees have publicized cases in which they were denied care that they considered to be necessary.

In some HMOs, most patients express satisfaction with the care they receive, but in other HMOs most patients express dissatisfaction. Reported satisfaction levels range from as high as 75 percent to as low as 35 percent. These differences have led some of the best HMOs to conduct marketing plans that attempt to distinguish themselves from more lowly rated plans. Many physicians express frustration with MCOs for overly interfering in the care of patients and for all of the paperwork involved in securing compensation/reimbursement. They see a genuine threat to the clinical autonomy of physicians.

**Preferred provider organizations (PPOs)** are networks of physicians and hospitals that

agree to give price discounts to groups who enroll in their program, use their services, and agree to follow specified regulations (such as preadmission hospital review). PPOs allow members to receive care outside the network, although the co-payments are higher. Though patients typically pay for care received on a fee-for-service basis (unlike HMOs) as members of a PPO, they pay lower fees than do other patients. In exchange for discounting fees, PPO providers are likely to see more patients. On average, cost savings for PPOs relative to traditional fee-for-service arrangements are in the 5 to 15 percent range. More than 80 percent of PPOs are run on a for-profit basis with commercial insurance companies accounting for most PPO ownership.

Over time, HMOs and PPOs have come to more closely resemble each other. The four key differences are as follows: (1) HMOs do more regulation of patient care, (2) HMOs have smaller rosters of available medical providers from which to choose, (3) HMOs cost less than PPOs, and (4) providers are typically paid by the capitation method in HMOs but by discounted fees in PPOs. When given a choice between the two, patients decide whether to accept the greater restrictions and smaller roster of providers in HMOs in order to achieve greater cost savings or to pay more for PPO membership to get a larger list of providers from which to choose and fewer regulations.

A **point-of-service (POS)** plan is a hybrid of HMOs and PPOs. Typically, they offer more choice of providers (like PPOs) while retaining more care management regulations (like HMOs). Providers are reimbursed by the capitation method. Members are able to receive care outside the system (i.e., use a provider who is not part of the plan) by paying a higher premium or absorbing a larger share of the cost. Some have described POS as having the benefits of the network discount of PPOs and the gatekeeper process of HMOs but with the possibility that the participant can receive partially subsidized care outside the network. Because they add flexibility for participants, POS plans have become quite popular.

## THE FINANCING OF HEALTH CARE IN THE UNITED STATES

### How Much Money Does the United States Spend on Health Care?

The United States has the most expensive health care system in the world (by far), and costs have been escalating rapidly. During the last five decades, health care spending has grown more rapidly than any other sector of the economy. **National health expenditures (NHEs)**—the total amount of spending for personal health care and for administration, construction, research, and other expenses not directly related to patient care—reached \$2.7 trillion (more than \$2,000 billion) in 2011—or more than ten times the amount spent in 1980. Notice the tremendous increase in all three items in Table 14–1.

The 2011 figure accounts for almost 18 percent of the gross domestic product (GDP)—the nation’s total economic output. That is to say that health care represents about 18 percent of the U.S. economy, and about \$1 in \$6 spent in the United States is on health care. The percentage of GDP spent on health care is much higher in the United States than in any other modern country, and all of the other modern countries provide universal health care coverage. Americans spent an average of \$8,680 per person on health care in 2011—more than twice as much as people in any other country.

The annual rates of increase in NHE in the 1980s and early 1990s were among the highest ever—sometimes more than 10 percent per year. In the late 1990s, the rate of increase was lower—about 4 to 6 percent per year—still higher than the increase in the overall consumer price index. By the early 2000s, however, annual increases were back in the 7 to 10 percent range, and analysts believed that is where they would remain. The economic downturn starting in 2008 depressed spending throughout the economy, including in health care, and spending growth has been back in the 4 and 5 percent per year since then.

**Personal health expenditures (PHEs)** include all spending for such health services as

hospital care; physician, dental, and other professional medical services; home health care; nursing home care; and drugs and over-the-counter products purchased in retail outlets but not money for things such as medical research. It is by far the largest component (about 85 percent) of NHE. In 2011, PHE amounted to approximately \$2.3 trillion. The next section focuses on PHE.

### Who Receives the Dollars Spent on Personal Health?

Who receives the dollars that are spent in America on health? What are we buying with the health care dollar? The five largest items (listed by dollars spent in 2011 and rounded off) are as follows:

1. **Hospital care** (\$851 billion—37 percent of PHE). Hospitals remain the largest recipient of health care dollars. More than one-third of all money spent on health care goes in payments to hospitals. Over the last several years, this percentage has decreased or risen modestly due to cost-containment efforts that have reduced admissions to hospitals and led to shorter lengths of hospital stay.
2. **Physician services** (\$541 billion—24 percent of PHE). Physicians are the second largest recipient of health care dollars. After many years of increases, this percentage has actually dropped in recent years due to more tightly controlled reimbursement levels used by the government and MCOs and by sharp increases in spending in other categories.
3. **Drugs and other medical nondurables** (\$349 billion—15 percent of PHE). Prescription drugs are the fastest increasing category of PHE. This category includes only those drugs and over-the-counter products purchased from retail outlets and excludes drugs dispensed in hospitals, nursing homes, and physicians’ offices. Retail sales of prescription drugs account for nearly 65 percent of this category. If all drugs are included, this percentage increases to around 18 percent. Extremely high costs for medical products

(including items such as wheelchairs and sleep-assistance machines) are also an important factor in this category.

- 4. Nursing home care and home health care** (\$224 billion—10 percent of PHE). While the growth rate for nursing home care dollars is decelerating, the increasing number of elderly persons and the high charges per day make this the fourth largest category of expenditures. The home health care industry continues to expand—it now accounts for almost \$75 billion per year.
- 5. Dental care** (\$108 billion—5 percent of PHE). This is the fifth largest recipient of PHE, and the only other one over \$100 billion in 2011.

### Who Spends the Dollars for Personal Health Care?

How is money channeled into the health care system? Health care in the United States is financed by a complex mix of private purchasers (employers, individuals, and families) and public purchasers (the federal, state, and local governments) who pay health care providers directly for services and products or channel payment through private or public health insurance.

#### Private Sources

In 2011, over half (56.4 percent) of all personal health care services were paid for by private sources. The fact that this percentage is close to 50 reflects the public–private mix of the U.S. health care system and the fact that even prior to health reform, public dollars accounted for almost half of those spent on health care. Most of these private payments—and the single largest source of payments for health care—came from private health insurance companies, and most of the remainder was paid out of pocket by individual patients and their families (see Table 14–3). Over the last 50 years, the relative contribution of private insurance within this category has increased while the relative contribution paid out of pocket has decreased.

**TABLE 14–3 Source of Payments for Health Services, 2011**

Item	Amount (%) of Expenditures (in billion dollars)
Personal health expenditures	2,279.3
Paid by private sources	1,286.3 (56.4% of PHE)
Private insurance	786.1 (34.5% of PHE)
Out of pocket	307.7 (13.5% of PHE)
Other	192.5 (8.4% of PHE)
Paid by the government	993.1 (43.6% of PHE)
Medicare	521.6 (22.8% of PHE)
Medicaid	374.5 (17.4% of PHE)
Other	97.0 (6.3% of PHE)

Source: Centers for Medicare and Medicaid Services, Office of the Actuary, Office of National Health Statistics, Baltimore, MD, 2013.

Payment for health insurance policies comes both from employers (who pay for all or part of a policy for employees and their families as a job benefit) and from individuals and families (who typically pay for part of the employer-provided policy or purchase a policy directly from a private health insurance company and must pay the entire premium).

**Employers.** Health insurance policies are expensive regardless of who pays. In 2011, employers paid more than \$11,000 per worker to provide the company’s share of health insurance for the worker and covered dependents (and employees contributed about \$4,000). Employers paid almost \$5,000 as their share for a policy to cover a single employee (and the employee contributed more than \$1,000). Businesses derive funds to pay for these policies largely by increasing the price of goods or services that they sell.

Rapid increases in insurance premiums in the last two decades have prodded many companies to revise the health insurance benefit provided to employees. Four changes have been especially dramatic:

- Some employers (especially small businesses which are hardest hit by providing insurance) have discontinued employee

coverage. Only about three in five workers today are covered by an employer-provided plan, the lowest percentage in several decades and still decreasing.

- Most employers have increased the percentage of the health insurance plan that must be paid by employees. While many companies formerly paid 100 percent of costs, the average today has dropped to 74 percent. In addition, employer contributions for coverage for dependents (many of whom had been largely subsidized) have been decreased.
- Employers have reduced the types and amount of health care covered by the policy.
- Policies have increased the deductible, increased the coinsurance, and increased the co-payment for those covered.

Employers feel pressure to pay for a reasonable share of employee health insurance cost. For large companies, this is a huge amount: In 2012, General Electric paid \$2.5 billion for health care premiums. The dollar value is smaller for small firms, but the percentage of operating costs is higher. Employees and dependents now pay more out of pocket for health care than ever.

**Individuals and Families.** These changes in the provision of employer-provided health insurance mean that individuals and families pay for health care in a variety of ways: (1) by paying a portion of the cost of a health insurance policy that is largely paid for by the employer or by paying the entire cost if the employer does not provide insurance coverage; (2) paying out-of-pocket health care expenses not covered by an insurance policy (deductibles, coinsurance, co-payments, and uncovered services); and (3) through various taxes such as the Medicare tax (employees have 1.45 percent of salary or wages deducted to subsidize Medicare; employers match this amount).

**Public Sources (Government)**

Over the last 40 years, one of the most important changes in the way that we pay for health

care is a shift from a reliance on private sources to increased government funding. From 1960 to 2011, the percentage of health care financing that comes from the government increased from 24.9 to 43.6 percent.

In order to see health care spending in perspective, it is helpful to look at the overall budget for the United States. The 2012 budget called for overall expenditures of almost \$3.8 trillion—that is, \$3,800,000,000,000, or \$3,800 billion. The main categories of spending are listed in Table 14–4. Medicare and Medicaid alone account for \$787 billion, but health expenditures occur in several departments [e.g., in the Department of Interior (Indian Health Services) and in the Department of Veterans Affairs (health care for veterans)]. Added to these amounts is that paid by state governments (Medicaid expenditures are the largest health-related items for states) and local governments.

**TABLE 14–4 United States Budget, 2012**

Expenditure	Amount in Billions
Health and Human Services (inc. Medicare/Medicaid)	940.9
Social Security	882.7
National Defense	672.9
Agriculture	154.5
Veterans Affairs	139.7
Treasury	110.3
Labor	101.7
Transportation	98.5
Education	71.9
State/International Programs	59.5
Homeland Security	55.4
National Intelligence	52.6
Housing/Urban Development	46.3
Justice	36.5
Energy	35.0
NASA	17.8
Interior	13.5
Commerce	9.0
Environment	8.9
Other	350.8
<b>Total</b>	<b>3,803</b>

Source: Office of Management and Budget, White House, 2013, [www.whitehouse.gov/omb](http://www.whitehouse.gov/omb).

## EXPLANATIONS FOR THE HIGH COST OF AMERICAN MEDICINE

How does the United States spend more money and a higher percentage of its GDP than any other modern country while being the only one that fails to provide universal health care coverage? In reality, the high cost of health care can be traced to several complex, interrelated changes that have occurred in society and within the health care system. This section examines three of the most important factors:

### The Aging of the Population

The most important factor *external* to the health care system (but *not* the largest overall factor) that is contributing to health care cost increases is the aging of the population and the accompanying increase in the experience of chronic diseases.

In 2012, the United States surpassed the 313 million population figure. It is the fastest growing developed country in the world, and much of this growth is based on immigration and a high birth rate among Hispanics—the largest immigrant group by far. However, the demographic trend that most contributes to increased health care spending is the fact that more Americans are living to older ages. Between 2000 and 2040, the number of persons in the United States age 65 and older will increase from 34.8 million to 77.2 million, and the number of persons age 85 and older will increase from 4.3 million to 14.3 million.

The increasing number of older Americans contributes to increased health care costs in several ways. As people age, they are more likely to experience one or more chronic, degenerative diseases such as heart disease, cancer, and diabetes. These diseases are often manageable, but they are resource intensive in the number of health care workers, health care facilities, and medications that are necessitated—all very expensive. The very high and rapidly increasing cost of drugs is especially problematic. These individuals may require home health care, assisted living, or nursing home care—all very expensive. Data show that health care costs escalate rapidly

after 65, and people older than 75 incur health care expenditures about five times greater than those between the age of 25 and 34. (It is estimated that a 65-year-old couple who retired in 2013 will need \$240,000 of their own money for health care costs in their lifetime.)

As one nears the end of life, extremely expensive high-technology care is often used to prolong life—sometimes for only a matter of days or weeks and often in a painful or uncomfortable condition. Studies show that the last year of one's life tends to incur far more health care costs than any other year and sometimes more than in all of one's entire previous life.

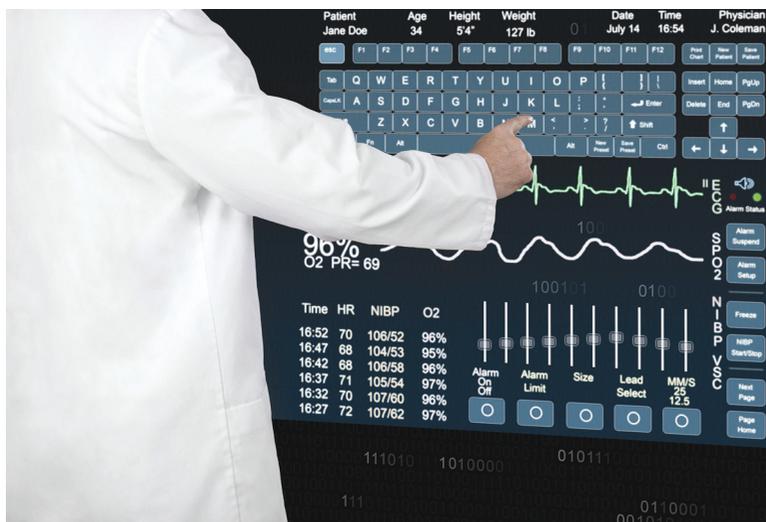
Having an increasing number of older persons is certainly not unique to the United States. Most countries in the world are experiencing the same trend. What is different is the fact that medical services—especially drugs—are far more expensive in the United States, and the fact that the United States is much more likely to use expensive, high-technology care in the final days of life. At this stage, other countries put more emphasis on pain relief and allowing death to occur. That largely explains why just 1 percent of Americans now account annually for more than 20 percent of health care costs.

Given the significance of factors within the health care system, this factor likely is responsible for only 6 or 7 percent of health care cost increases. Nevertheless, in a health care system as expensive as that in the United States, it represents very significant dollar amounts (Reinhardt, 2003).

### The High Cost of New Medical Technologies

Many social scientists and health care policy analysts believe that this factor is the most important factor driving up health care costs.

Clearly, there is more emphasis in the United States than in any other country in quickly incorporating new medical technologies. This occurs for several reasons. Medical providers want to offer the best possible care to patients, and high-technology innovations are often viewed as the highest quality treatments. Hospitals often fiercely engage in competition with each other and want to



Advances in high-technology forms of medical diagnosis and treatment have improved patient treatments but have also driven up the cost of medical care.

attract top physicians and other providers. Having the latest equipment (whether or not it substantially improves patient outcomes) can be an effective marketing device to the community and to medical providers (Bodenheimer, 2005).

High-technology medical equipment comes with a very high price tag (e.g., most diagnostic cameras cost at least several hundred thousand dollars plus the cost of maintaining the equipment and having people trained to use it). Makers of the equipment heavily promote it. Once purchased, hospitals and medical providers have a strong financial incentive to have the equipment used and to have it bring in revenue. Studies show that greater availability leads to greater per capita use. Greater per capita use leads to higher expenditures on these procedures, but rarely lower expenditures on other procedures. The overall contribution to cost increases is substantial. For example, throughout the last decade of the twentieth century and the first decade of the twenty-first, the number of diagnostic imaging procedures (including MRIs, CTs, PETs, and nuclear medicine) increased dramatically every year—tripling or quadrupling over a ten-year period. As one example, there were 3 million CT scans performed in the United States in 1980; in 2010 there were 80 million, and the number is increasing about 10 percent each year.

**Defensive Medicine.** Two other factors contribute to the increasing use of expensive, high-technology medical care—sometimes in situations where it is unnecessary. Chapter 8 examined the medical malpractice situation in the United States and the fact that malpractice suits are much more common in the United States than in any other country. Most physicians readily admit to practicing defensive medicine, that is, doing medical tests more to try to protect against a malpractice suit than to afford genuine benefit to the patient. Often, these extra services are high-technology diagnostic services or surgical procedures. To the extent that they are motivated primarily or solely to protect against a lawsuit, unnecessary medical costs occur.

**Physician Self-Referral.** In the last 20 years, a major controversy has developed over **self-referral**—physicians referring patients to other health care facilities in which they have a financial interest—a practice that became very common in the 1980s and 1990s. A 1991 Florida study discovered that 40 percent of the physicians in Florida had investments in medical businesses to which they could refer patients. At that time, 40 percent of physical therapy centers, 60 percent of clinical labs, 80 percent of radiation therapy centers, and 93 percent of diagnostic imaging centers in Florida were owned by

physicians. The physician-owned facilities did more procedures per patient and charged higher fees. Eventually, the Florida legislature halted self-referrals.

Other studies have affirmed this pattern. Hillman and his colleagues (1990) studied the use of diagnostic imaging tests among primary physicians who did the tests in their own office (with financial benefit) and primary physicians who referred to radiologists (with no financial benefit). They analyzed more than 65,000 insurance claims for patients with acute upper respiratory symptoms, pregnancy, low back pain, and difficulty in urinating (for men). For all four conditions, self-referring physicians obtained 4 to 4.5 times more imaging examinations than the radiologist-referring physicians, and the charges were higher per exam for those self-referring. Other studies have affirmed that self-referral is associated with higher costs but not improved outcomes (Hughes, Bhargavan, and Sunshine, 2010).

Defenders of self-referring practices counter that these studies do not prove that the higher use of services is inappropriate. They argue that having physician-owned facilities increases the likelihood of needed services being available in communities and that the ease of self-referring may enable physicians to get more appropriate tests performed for their patients. Nevertheless, the American Medical Association (AMA) has declared self-referring to be unethical and has encouraged physicians to abstain from it, and Congress passed sweeping new anti-self-referral legislation in 2009 that with some exceptions bans referral of Medicare and Medicaid patients to labs and facilities in which the referring physician has a financial stake.

### Medical Entrepreneurialism

**The Medical-Industrial Complex.** In 1980, Arnold Relman, then editor of the *New England Journal of Medicine*, used the term the **medical-industrial complex**, to describe the huge and rapidly growing industry that supplied health care services for profit. It included “proprietary hospitals and nursing homes, diagnostic

laboratories, home care and emergency room services, renal dialysis units, and a wide variety of other medical care services that had formerly been provided largely by public or private not-for-profit community based institutions or by private physicians in their offices” (Relman, 1991:854). He referred to this effort to invest in health as a means to profit as being **medical entrepreneurialism**.

At that time, the medical-industrial complex accounted for between 17 and 19 percent of health care expenditures. What was the problem? Relman expressed concern that the marketing and advertising techniques of the companies and their drive for profit would encourage unnecessary use, inappropriate use, and overuse of health care resources that would push up health care costs; that expensive technologies and procedures would be preferred to less costly efforts; that attention would become riveted on patients able to pay, leaving the poor and uninsured to an overburdened not-for-profit sector; and that physicians’ allegiance to patients would be usurped by their involvement in health-related profit-making ventures (Relman, 1980).

Four specific concerns about the medical-industrial complex connect to the issue of the high cost of medical care: (1) corporate profit, (2) exorbitant salaries and compensation packages for management, (3) high administrative costs, and (4) medical fraud.

**Corporate Profit.** Data clearly show that pharmaceutical and medical products companies are among the most profitable industries in the United States. Even in down years, they tend to outperform the rest of the economy by a wide margin. The profitability of health insurance companies is on a smaller scale with annual profit margins of about 6 or 7 percent over time—far less than drug or medical products companies but still a very healthy return. The accompanying box, “Growing Criticism of the Pharmaceutical Industry,” describes this issue in more detail.

A key trend recently has been the merger of health insurance companies. From 1995 through 2008 more than 400 corporate mergers involving

health insurers occurred. This increased the market share of the largest firms and decreased competition. In 2008, the AMA reported that 94 percent of insurance markets in the United States were highly concentrated, with only one or a few insurers controlling the market. In 2009, the percentage of markets that were highly concentrated bumped up to 99 percent. In these markets, insurers do not have to compete with each other and have reduced need to seriously negotiate with providers because they will simply pass on increases to consumers. Not long after the AMA issued its report, Anthem in

California announced that it would be increasing rates 39 percent for the next year (Berry, 2010).

**High Administrative Costs.** The United States spends a much greater percentage than any other country of its health care dollars on administrative activities. Most countries spend around 10 percent of health expenditure on administration, but the United States spends 25 to 30 percent. That means that between one-fourth and one-third of the money spent on health goes for running the health care system, regulatory reporting, billing patients, and clerical matters.



## IN THE FIELD

### GROWING CRITICISM OF THE PHARMACEUTICAL INDUSTRY

The pharmaceutical industry has become a global force dominated by several huge, multinational companies (“Big Pharma”). The largest companies are Pfizer (\$20 billion annual sales), AstraZeneca (\$18 billion annual sales), GlaxoSmithKline (\$17 billion annual sales), Merck & Co. (\$15 billion annual sales), and Hoffman-LaRouche (\$14 billion annual sales). Together with the next five largest companies, they control more than half of the pharmaceutical market. All of these companies are highly commercial, make significant profit, and are major contributors to the economy of the nation in which they are based (most but not all of the largest companies are based in the United States). The companies all enter into alliances with smaller biotechnology firms, which contribute to the research on new drugs. They make most of their revenue on patent drugs (Busfield, 2006).

The pharmaceutical industry was once a very widely respected industry, but it has been the subject of significant criticism over the last several years. Among the most common criticisms are the following:

- The price for medications is extremely high and increasing very rapidly. Prescription drugs account for 14 percent of all personal health care expenditures in the United States and more than that if drugs administered in

hospitals and nursing homes are included. For example, the 2010 cost for a 30-day prescription for cancer drugs was \$1,600 (\$11,200 annual cost). A new drug to treat colorectal cancer cost \$50,000 per year and may go to \$100,000. The cost of this drug increased 16 percent in one year, more than the average for medications but less than for some others. In 2008, 71 drugs more than doubled in price. New developments with drugs are promising medically but extraordinarily expensive. New “specialty” drugs are being developed that are genetically engineered to each particular patient. They should be available for cancer, multiple sclerosis, rheumatoid arthritis, and many other diseases and should be more effective than anything now existing. Early experience is very positive. What is the cost? Some will be only \$10,000 to \$100,000 per year, while others will be \$250,000 to \$500,000 per year per patient. It is not impossible that the first million dollar-a-year drug is on the way. Not surprisingly, many patients do not have access to the drugs (Faden et al., 2009).

- The pharmaceutical industry is extremely profitable. In recent years, pharmaceuticals have been the most profitable industry in the United States (an average annual return on investments of 20–25 percent in the last decade). Most drugs cost significantly more in the

(Continued)

(Continued)

United States than in other countries. While overall health care costs have been growing much faster than the rate of inflation, drug costs have been growing faster than overall health care costs.

- The pharmaceutical industry spends far too much on marketing and far too little on research and development. Part of the reason that drugs cost so much is that drugmakers spend billions of dollars each year on advertising in attempts to persuade physicians and patients to use their products rather than those of a competitor. Pharmaceutical companies spend about 20 percent of their budgets on research and development but about 40 percent on advertising.

- Part of the marketing budget goes to provide physicians with all-expenses-paid trips (“educational symposia”) to plush resorts for self and spouse (sometimes an honorarium is thrown in). In the first five years of the 2000s, more than 90 percent of physicians reported some type of relationship with the pharmaceutical industry (such as receiving food or beverages in the workplace, drug samples, payments for speaking, tickets to cultural or sporting events, reimbursements for travel, and financial incentives for prescribing specified levels of certain drugs) (Campbell et al., 2007). In 2007, the pharmaceutical industry spent more than \$1 billion to provide “continuing education” for physicians and more than \$30 billion overall on promotion of its products. Now, there is a growing movement for medical providers to no longer accept gifts from pharmaceutical companies because they represent an ethical conflict of interest. The medical profession and the pharmaceutical industry are attempting self-regulation on the issue, and several states now require public disclosure of such practices (Grande, 2010).

- The pharmaceutical industry has provided inaccurate and/or inadequate information in its drug advertising. This can happen in several ways. For example, about one-fourth of biomedical researchers in the United States who study drugs and may speak favorably about them have financial ties to the companies whose products they are studying—not illegal but a clear conflict of interest. Researchers receiving industry funding are

more than 3½ times more likely to report a result favorable to the company (Gross et al., 2003). An especially egregious example came to light in 2009 when it was learned that an anesthesiologist-researcher in Massachusetts had fabricated results in 21 painkiller studies and published bogus findings in top journals. Two of the drugs about which he had published favorable findings were made by Pfizer, which had given him undisclosed amounts of speaker fees and five research grants during the same time period. One of the drugs has been linked to heart attacks in patients taking it and has been recalled. Pfizer settled for \$2.3 billion in fines for illegally marketing the drug.

- Pharmaceutical companies have been fined for promoting use of its drugs for purposes other than that for which they have been approved. Television commercials for prescription drugs have been found to omit mention of causes or risk factors for the condition involved, fail to mention nondrug alternatives for the condition, and unrealistically portray the medication’s role in improving health (Frosch et al., 2007). Like many industries, drugmakers have created front groups—like United Seniors Association and the Seniors Coalition—which ostensibly are groups of seniors advocating for drug company positions on issues. Instead, virtually all of their funding has come from the pharmaceutical industry. In recent years, some of the largest companies have paid fines for such crimes as overcharging the Medicaid program and for inducing physicians to bill the government for some drugs that the company gave them for free (fraud).

- Pharmaceutical companies have strongly lobbied to prevent the importation of less expensive drugs from other countries. Most countries have placed price controls on drugs to ensure that they do not bankrupt the government or insurers or patients. In Canada, one such country, drug prices are 50 to 80 percent less than that in the United States. So why don’t Americans just buy their drugs online from Canadian pharmacies? U.S. pharmaceutical companies strongly oppose that for fear that it would undercut exorbitant prices here. So, they have warned Canadian wholesalers and pharmacies not to do that or risk losing business with our industry. Through much of

the first decade of the 2000s, the U.S. government argued that Canadian drugs might be counterfeit or adulterated (despite that never having happened). Laws were passed to prevent Americans from large-scale drug buying from other countries, although several states and cities ignored the warnings and established purchase arrangements (Kesselheim and Choudhry, 2008).

- Pharmaceutical companies have taken advantage of patients in developing countries in several ways. First, they test drugs on patients in developing countries because it is less expensive there. This occurs even when the drug may be for a condition more likely to be found in developed countries. Second, the drug companies do not focus research on or market drugs for conditions that are common in developing countries but not developed countries because anticipated profits are less. Third, the pharmaceutical industry has lobbied intensively to prevent poor countries from manufacturing their own generic equivalent of patented medicines. Big Pharma has pressured to levy trade sanctions on countries such as India and Egypt for producing generic drugs (MacDonald and Yamey, 2001; Petryna, Lakoff, and Kleinman, 2006).

- In the last decade the medical care system has experienced frequent shortages of certain drugs, especially drugs that are effective against cancer. Hospitals and physicians complained that treatment was being delayed for some cancer patients. While the explanation for these shortages seems to be multifactorial, a key reason is that the drugs are generic and do not

make as much money for pharmaceutical companies as do drugs still under patent. Physician professional associations and the Food and Drug Administration have complained and are working to address the problem (Chabner, 2011).

The pharmaceutical industry strongly defends its practices. The industry contends that its profit motivation is necessary to encourage investment in the companies and to attract top management. Significant price increases are justified by overall price inflation in society and by the costs involved in drug research. A high advertising budget and extensive marketing techniques are necessary to capture the attention of physicians and patients. They contend that they have a right to defend themselves and conduct successful businesses.

But, Marcia Angell (2005:xv), a physician, former editor of *The New England Journal of Medicine*, and now a senior lecturer at Harvard University Medical School, wrote the following in the preface to her book, *The Truth About Drug Companies: How They Deceive Us and What to Do About It*:

Sadly, there is little sign that the pharmaceutical industry is responding to its current difficulties by changing its behavior. It continues . . . to use its massive marketing muscle to promote them [non-innovative drugs] relentlessly, to charge prices as high as it can get away with, and to act as if it puts short-term profits ahead of everything. It doesn't have to be that way. Drug companies could be what they once were—businesses that were quite profitable, yes, but also sources of cutting edge research that produced real medical miracles.

How much does this chaotic system cost in unnecessary administrative expenditures? Woolhandler, Campbell, and Himmelstein (2003) examined 1999 fiscal expenses for 5,220 U.S. hospitals. They determined that hospital administrative costs in the United States averaged 24.3 percent. This percentage was almost double the hospital administrative costs in Canada (12.9 percent). While this comparison may be influenced by several variables, they concluded that if the United States trimmed its hospital bureaucracy to the Canadian level, tens

of billions of dollars could be saved annually. In addition, a similar amount could be saved on overhead expenses of insurance companies and physicians' paperwork. (The AMA estimates that physicians spend an average of 17 hours per week on administrative duties—completing patient charts, ordering tests, justifying procedures to insurers, and seeking reimbursement.)

A key part of the problem is billing. Consider the difference between a hospital located in a country where everyone carries an identical health card and is governed by the same regulations

versus a hospital in the United States in which patients may or may not have insurance; if they do, it could come from any one of 1,300 private companies or the government, each of which has a wide configuration of benefits. A medium-sized hospital in most countries will have a couple of people who work in billing; in the United States, it would be dozens and dozens of billing agents. No wonder that an estimated one in five medical bills contains at least one error.

The Institute of Medicine estimates that the United States spends more than \$360 billion annually on health care administration—more than twice what is spent on heart disease and 3 times what is spent on cancer (Cutler, Wikler, and Basch, 2012).

**Exorbitant CEO Salaries and Compensation Packages.** Extraordinarily large salaries and compensation packages occur throughout the nation's economy. Corporate executives of health insurance companies, pharmaceutical companies, medical equipment companies, hospitals, and health associations who receive noticeably large salaries have come under special criticism given that health care is priced out of reach for millions of people. Following are the total compensation packages received by the CEOs of some organizations in 2010: UnitedHealth Group—\$50 million; Health Corporation of America—\$41 million; Community Health Systems—\$21 million; Coventry—\$19 million; DaVita—\$16 million; Cigna—\$14 million; Amerigroup—\$12 million; Tenet—11 million; and Universal Health Services—\$10 million. Given all of the health care organizations in the country, compensation packages just for CEOs is a sizable sum.

**Medical Fraud.** There is a massive amount of **medical fraud** occurring on a regular basis in the United States. Pharmaceutical companies have frequently been the target of fraud charges. Among those paying settlements in just 2011 were Abbott Laboratories—\$421 million for knowingly reporting false and inflated prices for a variety of pharmaceutical products; Par Pharmaceuticals—\$154 million for overcharging Medicare and Medicaid; Watson

Pharmaceuticals—\$79 million for defrauding Medicaid; and Serono Laboratories—\$44 million for illegal kickbacks to healthcare providers. In 2012 the Department of Justice announced the largest ever settlement in a healthcare fraud case with GlaxoSmithKline pleading guilty to three criminal counts plus civil charges and paying \$3 billion to the federal government and participating state governments.

In addition, the parent company of a chain of dental clinics agreed to a \$24 million settlement after insiders reported they were doing medically unnecessary and substandard procedures on children to bilk Medicaid. A Miami man submitted \$61 million in false Medicare claims for the treatment of patients with HIV/AIDS, cancer, and other ailments. A Miami physician cheated Medicare out of \$40 million in which home care patients were dishonestly described as being blind and diabetic in order to bill for extra nursing visits. A Massachusetts dentist used paper clips instead of stainless steel posts inside the teeth of root canal patients and charged Medicaid for the more expensive parts. An owner of a wheelchair company paid Medicare recipients to say wrongly they had received an expensive wheelchair, which he billed to Medicare. A Missouri pharmacist diluted chemotherapy drugs given to thousands of cancer patients. Scam artists have sent bills to Medicare using the ID number of deceased physicians. A hospital executive in California was arrested for heading a scheme to recruit homeless people as phony patients and then bill the government for millions of dollars. The nation's largest rehabilitation hospital was found guilty of massive fraud. Conservative estimates are that medical fraud costs the United States about \$70 billion each year.

## AMERICA'S UNINSURED POPULATION

While government programs have offered substantial help to millions of people, they have never become an effective safety net. By 2010, approximately 47 million Americans (almost one-quarter of them under the age of 18) did not have any private *or* public health insurance

coverage. This equates to about one person in eight in the United States. In any two-year period, more than 80 million Americans spent at least some time without health insurance, and about two-thirds of these individuals lacked insurance for at least six months. In addition, millions more Americans have been *underinsured*—they have an insurance policy that contains major loopholes (important services that are not covered) or requires large out-of-pocket payments for services or both.

### Who Are the Uninsured?

Many people have not understood that becoming uninsured can happen to anyone. For example, most people who lack insurance are employed. In recent years, more than 60 percent of uninsured Americans have been in families with a worker who works full time year-round, and an additional 20 percent-plus are in families with a year-round part-time worker or a partial-year full-time worker.

People of all ages are uninsured. The uninsured are people in the early years of their careers, just beginning to get financially settled, and often still shifting from job to job as well as people throughout the age spectrum all the way up to age 65 when Medicare eligibility occurs. Although two-thirds of the uninsured are white, people of all races and nationalities deal with this problem—about one-seventh are Hispanic and about one-eighth are black. However, members of racial and ethnic groups are more likely than whites to be uncovered. About 30 percent of Hispanics are uninsured, as are just under 20 percent of blacks and Asians, and about 12 percent of whites.

People at almost any income level can be uninsured. Many are below the federally established poverty level. Others are just above the poverty level—often referred to as the medically indigent or the working poor—and are sometimes in greatest need of health care. The cost of purchasing health insurance has increasingly become a problem even for people in the middle class. The percentage of people earning incomes of \$50,000 and more who lack

insurance has risen over the last several years, reflecting just how expensive policies have become. “Many of these families have children to support, home mortgages to pay, and college loans to reimburse, in addition to other basic expenses. Many are self-employed; many have been working only a few years and do not have large financial savings; and many are taking care of elderly relatives” (Weiss, 2006:63). In such circumstances, paying \$10,000 a year or more for a family health insurance policy is just not possible. While some argue that many uninsured persons can actually afford health insurance, much research has found that not to be true (Bernard, Banthin, and Encinosa, 2009).

### The Role of the Employment-Based Health Insurance System

As described earlier, health insurance provision in the United States largely relies on voluntary, employer-provided programs. Most large businesses offer health insurance to their employees as a benefit of employment. Typically, the employer pays for most of the cost of the policy (the average today is 74 percent) for employees. Employees pay the remaining amount of the premium; pay attached deductibles, coinsurances, and co-payments; and pay for whatever services are not covered in the policy. This system works well for many, but it has been a complete failure for millions more. In 2011, 160 million Americans had health insurance through employer-provided insurance; more than 100 million people were covered by Medicare, Medicaid, and other public programs; 16 million people purchased their own health insurance, and more than 47 million people—about 17 percent of the entire population—lacked any form of health insurance.

Prior to The Affordable Care Act, the public/private, employment-based system in the United States failed to make health insurance available to at least seven primary groups (and, of course, their dependents are thus affected) (Weiss, 2006):

1. *Individuals who are unemployed.* Because the primary way that health insurance is

provided is through employment, persons without a job are automatically cut off from this benefit. These individuals can purchase a health insurance policy directly from a health insurance company, but that can be a very expensive option fraught with difficulties. Coverage for existing medical problems may be excluded, and, if the problems are serious, an individual may not be able to purchase insurance at all (i.e., those who need it most are least likely to get it). Many states have offered high-risk pools for those who are refused an individual policy, but these will end in 2014 and be replaced under The Affordable Care Act.

2. ***Individuals after retirement but before Medicare.*** Some individuals are fortunate to have worked for an employer who continues to subsidize their health insurance even after retirement. But many companies have discontinued this benefit, and most companies have significantly raised the percentage of the cost that must be borne by the retiree. Two-thirds of companies offered retiree health benefits in 1990 and just one-third in 2005, and the percentage has decreased since then. Of companies that do offer it, the percentage of cost that the retiree is responsible for has jumped from 0, 10, or 20 percent to 50 or 60 percent or more. For wealthy retirees, this may not be a problem. But for low-income retirees, who have just entered a time of significantly reduced income, increased expense for health insurance is a heavy burden.
3. ***Individuals during any transition period from one job to another.*** Millions of Americans change jobs each year. Until recently, when an individual left a job, employer-provided health insurance ended. Coverage by health insurance provided by the new employer did not begin until the individual started the new job and often not for another 6 or 12 months. This created a dangerous gap between coverage periods in which the individual and his or her dependents lacked health insurance.

In 1986, Congress passed the Consolidated Omnibus Budget Reconciliation Act

(COBRA), which enables specified workers who have lost their jobs to continue their health insurance coverage for themselves and their dependents for up to 18, and sometimes 36, months. To do this, however, the displaced worker is required to pay the portion of the insurance cost that he or she was paying plus the amount that was being paid by the employer. This is typically too expensive for displaced workers to afford. In recent years, only 20 to 25 percent of those eligible to purchase insurance through COBRA have done so.

4. ***Individuals working part time, including those who are working at two or more part-time jobs simultaneously.*** Many workers are not able to secure a full-time position and work only part time. In order to try and make ends meet, many take on a second part-time job and may work a total of more than 40 hours per week. But employer-provided health insurance typically is a benefit given only to full-time workers. So, even though an individual may be working at a combination of part-time positions that total more hours than many full-time positions, no health insurance is provided. What's more, some employers—fast-food restaurants are a common example—intentionally hire workers at just under the number of hours per week that would make them full time and eligible for a health insurance benefit.
5. ***Individuals who work for small businesses.*** Small businesses are in a very difficult position with regard to health insurance, and employees of small businesses suffer the consequences. Large employers have a distinct advantage in negotiating for health insurance coverage. Insurance providers recognize that especially costly procedures received by one or a few individuals in a large employee group can be spread across the entire group. Because many will use few services, part of the difference can be used to cover the higher costs incurred for others. Small businesses do not have this luxury. If one or a small number of employees in a small business has exceptionally high costs,

there are not enough fellow employees to cover it. Therefore, health insurance companies routinely charge higher fees for policies—an average of almost 20 percent—for small businesses and raise their rates more sharply when high expenses occur. The result of this pattern is that small businesses are much less likely to provide health insurance coverage for their employees.

**6. *Individuals who cannot afford the employee share of employer-provided health insurance.***

Few employers continue to pay for the total cost of a health insurance policy for employees. In 2010, only 2 large companies in 100, and virtually no small companies, still paid the full health insurance premium for employees. Many have decided that they cannot afford to provide this extensive coverage, and so they are having employees absorb a greater share of the cost. This has been done in several ways. First, the services provided by the policy have been reduced, so that employees have to pay for some services that once were covered. Coverage for mental health service is often the first to go. Second, the amount of deductibles and co-payments has increased because that reduces the cost of the policy. Third, the percentage of the policy premiums paid by employees has been increasing. Fourth, even in situations in which the company continues to pay a high percentage of the premiums for the employee, the amount contributed to cover the employee's family has begun to diminish. Only about two-thirds of employees today are covered by health insurance plans offered by their employer.

**7. *Individuals who are in this country illegally.***

More than 11 million individuals in the United States have entered the country illegally. Many employers knowingly hire these individuals because they are willing to do jobs that others will not do, and because they are willing to work for less than the minimum wage. Often, they are paid under the table, so that their illegal status is not discovered. Typically, they are not provided with any health benefits. Working at a low wage

and without health insurance means that it is very difficult for these people to afford medical care regardless of the seriousness of a disease or illness.

### The Consequences of Being Uninsured

The lack of personal financial resources to pay for private medical care and the lack of health insurance have a profound effect on the health of individuals and families. People without health insurance are less likely to seek preventive medical care such as medical checkups (especially pap smears and mammograms for women and prostate cancer screening for men) and immunizations. They are more likely to try to get through illnesses on their own without seeking a medical provider. If they do see a medical provider, they often have waited until they have become very sick, their health is more threatened, and, in some cases, such as patients with cancer or diabetes, the benefits of early detection are lost. They are less likely to have a regular source of medical care and more likely to see a different provider on each visit. They are also less likely to receive mental health care, dental care, and care from primary care physicians and are especially unlikely to receive care from specialists (Freeman et al., 2008).

They are less likely to be admitted to a hospital but are sicker when they are admitted. They receive fewer expensive medical treatments while in the hospital and are often deprived of the benefits of medical technology (even when controlling for need, the uninsured are less likely to get clearly beneficial procedures such as heart bypass surgery, cataract surgery, and treatment for depression). Analyzing discharge abstracts for almost 600,000 patients hospitalized in 1987, Hadley, Steinberg, and Feder (1991) found that the uninsured had, at the time of admission, a 44 to 124 percent higher risk of in-hospital mortality and, after controlling for this difference, a 1.2 to 3.2 times greater chance of dying in the hospital.

These negative health patterns occur among children as well as adults. Uninsured children are only one-sixth as likely as insured children

to have a usual site where they receive health care. Uninsured children are more than five times more likely as the insured to have at least one unmet medical need each year, more than three times more likely to forego a needed prescription, and 70 percent more likely to go without needed medical care for childhood conditions such as sore throats, ear infections, and asthma.

Not surprisingly, people without health insurance end up in poorer health and with earlier death than those with insurance. A 2003 study comparing mortality rates of the insured and uninsured in Kentucky found significant disparities. The three-year survival rate for patients with prostate cancer was 98 percent for the insured but only 83 percent for the uninsured. For patients with breast cancer, the survival rate was 91 percent for insured patients and 78 percent for those uninsured. The comparable figures for those with colorectal cancer were 71 percent and 53 percent, and with lung cancer, 23 percent and 13 percent (McDavid et al., 2003). In 2009, the Institute of Medicine determined that 18,000 deaths each year could be blamed on the lack of health insurance and the resulting absence of preventive services, timely diagnoses, and appropriate care (Institute of Medicine, 2009).

One's risk of a health care catastrophe does not end even when one is insured. As many as half of all Americans have trouble paying for medical care each year, and most of these people have some form of health insurance. Prior to passage of The Affordable Care Act, there were approximately 25 million such underinsured people in the United States. Their insurance often did not cover the types of care being needed, may have had a low limit on the total amount that would be paid, or have had such high premiums, deductibles, and co-payments that care could not be afforded. Research found that many insured persons went without needed medical treatment due to the cost. In 2008, 34 percent of Americans skipped dental care, 27 percent put off getting needed medical care, 23 percent skipped a recommended medical test, 21 percent failed to get a prescription filled, 15 percent cut pills in half or skipped doses, and

7 percent had trouble getting mental health care (Kaiser Family Foundation, 2009b).

## HISTORICAL EFFORTS TO REFORM THE HEALTH CARE SYSTEM

Efforts to enact health care reform have a long history. Initiatives began in 1926 when the privately funded Committee on the Costs of Medical Care (CCMC) considered policy changes to address the high costs of and inadequate access to health care services. The CCMC proposed that health care be delivered primarily by physicians organized in group practices and that funding come from voluntary insurance plans and subsidies from local governments for low-income persons. However, the AMA and many other groups inside and outside medicine strongly opposed the ideas as threats to private practice and physician autonomy (Waitzkin, 1989).

The Roosevelt administration pushed for National Health Program (NHP) legislation in 1938 as did the Truman administration in 1945, but Congress supported neither. Despite widespread popular support, the AMA along with the American Hospital Association and the U.S. Chamber of Commerce led campaigns against what they labeled “socialized medicine.” Coupled with general anticommunist sentiment of the 1950s, no proposal was ever passed (Waitzkin, 1989).

The turmoil of the 1960s revitalized support for health care reform. As a consequence, Congress considered a number of proposals for an NHP, leading to the eventual establishment of Medicaid and Medicare in 1965. These programs brought major changes in public funding for health care but did not create a comprehensive program.

### The 1990s and the Clinton Health Initiative

By the late 1980s and early 1990s, public sentiment seemed to be running strongly in favor of a national health program. A 1989 Lou Harris poll of consumers in Great Britain, Canada, and the United States found that U.S. consumers

were the *least* satisfied with their own health care system. Only 10 percent of U.S. respondents assessed the health system as working even fairly well, and nine out of ten thought that the system was in need of fundamental change in direction and structure (Coddington et al., 1990). Several surveys found that a large plurality, or even a majority, of Americans had a preference for a Canadian-style, single payer system with universal coverage.

Moreover, a broader cross-section of the population expressed support for health care reform than in earlier years and included many business leaders and health care providers formerly opposed to significant change. Popular support for a comprehensive program appeared to be so pervasive that a bipartisan effort in Congress seemed possible.

With this backdrop, Bill Clinton made health care reform a major issue in the 1992 presidential campaign and, after his election, a major commitment of his administration. After many months of fact-finding and deliberation by a task force led by Hillary Clinton, the Clinton proposal—termed **managed competition**—was introduced in November 1993. The proposal attempted to address both the problems of access and cost in a way that would be politically acceptable to Congress, key health care constituencies, and the American people. It called for a system that would guarantee a comprehensive set of health care services for all Americans (universal coverage). Large health alliances (groups of employers) would be created to negotiate for the best financial arrangements with MCOs. The plan would largely be funded through taxes applied to employers, with small employers being subsidized. Other cost-control mechanisms, such as capping insurance premiums and malpractice reform, were included. The complete proposal—all 1,342 pages of it—contained an enormous amount of detail.

Opposition to the plan emerged within weeks. The Health Insurance Association of America (HIAA), an organization that represented much of the small- and medium-sized business community (including many insurance companies), led lobbying efforts to oppose health care

reform. Small business owners felt that they could not afford to provide health care coverage for their workers. Small insurance companies were alarmed that they would not survive in the new system. Liquor, beer, and cigarette companies decried the extra taxes that would be placed on their products to help pay for the system. The AMA and the AHA opposed limits being placed on physicians' fees and hospital charges. Drug companies opposed mandatory cost controls on drugs. Trial lawyers opposed malpractice reform. Many persons expressed reservations about new forms of bureaucracy (e.g., the health alliances) being created. Some analysts charged that the Clinton administration had failed to work sufficiently closely with congressional leaders in developing the plan, while others cited the continual difficulty of passing any broad-based reforms within the American political system (Quadagno, 2005).

In the ensuing months, when the Congressional Budget Office (CBO) declared that the proposal would cost significantly more than Clinton had estimated, many middle-class families became frightened about the necessity of tax increases. While public opinion polls continued to show support for many of the basic values guiding the proposal (e.g., guaranteeing health care for everyone), controlling costs had become a more important objective for most people than universal coverage. In September 1993, almost six in ten Americans supported the proposal; by July of 1994, almost six in ten opposed. By fall of 1994, it was clear that the proposal lacked majority support in either house of Congress, and it was essentially dropped.

### Health Care Reform at the State Level

While the executive and legislative branches of the federal government were debating health care reform, several of the individual states initiated their own statewide efforts. These reforms typically aimed both to increase the number of people covered by health insurance and to create effective cost containment provisions.

The momentum began in Hawaii, where, since 1974, all employers have been required

to provide their employees with comprehensive health care benefits. Employees also make a contribution. Combined with Medicare and Medicaid (which is set at the most generous eligibility level in the country), 98 percent of Hawaiians have basic health care coverage. Between 1974 and 2010, more than half of the states considered legislation to make health insurance more affordable. In recent years, Massachusetts passed a plan based on a requirement that everyone purchase health insurance with the state government assisting individuals, families, and small businesses in finding an affordable plan and helping to subsidize those who could not afford it. California Governor Schwarzenegger vetoed a bill passed by the state legislature but proposed a mandatory purchase system similar to that in Massachusetts. Vermont and Maine passed voluntary programs intended to make health insurance more affordable. However, fiscal problems being experienced in many states curbed legislative enthusiasm and caused states to back off their stated goals. Several states have even reduced Medicaid funding or enacted other restrictions. So, while there was more commitment to assisting the uninsured in some of the states than in the federal government, until 2010, there were severe limits on what they could accomplish (McDonough, Miller, and Barber, 2008).

### HEALTH CARE REFORM OF 2010: THE PATIENT PROTECTION AND AFFORDABLE CARE ACT

After the unsuccessful attempt of President Clinton to enact health care reform legislation in the early 1990s, the issue moved off the front burner in the national political arena. Although President Bush supported the enactment of the very significant Part D of Medicare—the prescription drug benefit—he was not an advocate for sweeping health care reform. However, the presidential campaign of 2008 brought health care issues back to the surface. Plans for reform were a hot issue in the Democratic primary. Although both Senator Clinton and Senator Obama supported large-scale

health care reform, their individual proposals differed in important details. With Senator Obama's nomination, he made health care reform a major issue in the presidential campaign running against Senator McCain. The campaign seemed to indicate that a majority of people were in favor of significant health care reform but also that many people strongly opposed it.

### Positions on Health Care Reform

Within the Congress as within the country, positions on health care reform cover a wide spectrum. As of 2010, however, three broad categories encapsulated most specific positions.

**Advocates for a Private Market Approach.** **Private market approaches** are based on preserving the largest-possible role for the private sector and the smallest-possible role for the federal government. This approach is favored by all or almost all Republican politicians and, in earlier debates on health care reform, by the health insurance, pharmaceutical, and other for-profit businesses. The U.S. Chamber of Commerce is also a strong supporter. They have consistently opposed any significant intervention by the federal government in health care.

**Advocates for an Incremental Social Justice Approach.** **Incremental social justice approaches** are based on the belief that the best or only way to achieve universal health care coverage is to make as many changes as possible on a one-at-a-time basis. For example, on an individual basis, they have promoted instituting a uniform insurance billing form, prohibiting the denial of insurance because of preexisting conditions, and working to guarantee coverage for all children as soon as possible. Many Democrats and Independents had come to support this approach.

**Advocates for a Social Justice Approach.** Proponents of this approach contended that significant health care reform was necessary, that the private market approach had failed, and that federal government intervention was essential.

Some advocated for a single-payer system (like in Canada) where the government is the only entity that pays for health care. Others advocated for a public–private mix (like in many European countries) in which both the government and a for-profit or not-for-profit private sector play a large role and are involved in financing health care. This approach was also favored by many Democrats and Independents and won endorsement from groups such as the Institute of Medicine, the American Public Health Association, and the Catholic Health Association.

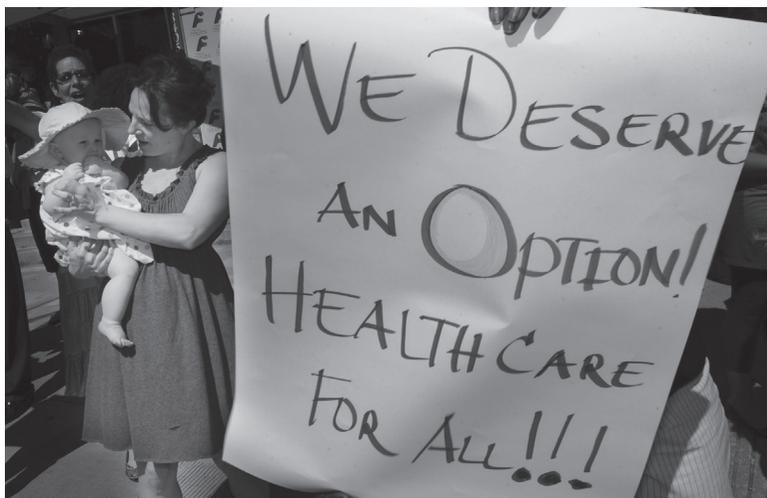
### The Political Process of Reform

Within weeks of his election, President Obama began engaging the country and both political parties with ideas for health care reform. There were many possibilities about specific details, but the overarching goals were to guarantee coverage for most or all people and to do it in such a way as to contain costs. President Obama hoped for passage of a bill in the summer of 2009; there seemed to be strong support, and there were reasonably cooperative relations between the parties (at least an absence of hostility). For a time it seemed that significant reform was inevitable.

Then, quickly, things began to fall apart. Some Republican politicians decided to test the commitment of Americans to health care

reform. They called the plan “socialism” and “socialized medicine” and characterized it as a “government takeover” of health care. These arguments had always been successful in the past, and they took hold again. In July 2009, the cost for the proposed reform was estimated to be over \$1 trillion, and that also stirred much opposition. The Congressional Budget Office, a carefully nonpartisan agency that attempts to base its conclusions only on available evidence, declared that the proposed legislation would not slow health care cost increases. Polls began to show declining support for reform, and Republicans, now encouraged that they could defeat the bill and not allow the opposition party a significant political accomplishment, became more forceful opponents.

The declaration of the CBO caused Democrats to revisit an idea for controlling costs that had been discussed earlier but not pursued—creation of a “public option.” This would be a public-sponsored health insurance program like Medicare that would compete with private insurers and force them to better control costs and premiums. Two-thirds of the public expressed support, but health insurance companies argued that they would not be able to successfully compete. Republicans argued that the plan would force the private sector out of health care. It became obvious that health care reform was not close to smooth sailing.



Many persons strongly desired creation of a “public option”—a government-run health insurance program that would compete with commercial companies and hopefully force them to moderate price increases.

**Summer, 2009: Opponents of Large-Scale Reform Go on the Attack.** When Congress convened for the summer, many politicians set up sessions (“town hall meetings”) with constituents to hear their views about reform proposals. Opponents of reform attended these sessions en masse and often behaved in an unruly fashion. Angry and hostile comments were made, and supporters of reform were shouted down by opponents and called “un-American.” Supporters began yelling back, and the meetings became even more contentious. Conservative television talk-show host Rush Limbaugh put an image of an Obama health care logo on his Web site that morphed into a Swastika. Interestingly, public opinion polls at the time found that more people considered angry attacks on the bill a “sign of democracy” rather than an “abuse of democracy.” About 60 percent of poll respondents viewed shouting down supporters of the bill as an abuse, but one-third considered it a sign of democracy.

About the same time, Sarah Palin, 2008 Republican vice presidential candidate, began targeting one of the components of reform legislation: an encouragement for physicians to genuinely talk to people near the end of their

life about what treatments they wanted and did not want. This idea was based on much research that has found that people really want this conversation and often are happier in their remaining days when they have this chance to knowledgeably participate. However, Palin and others portrayed these sessions as “death panels.” House Republican leader John Boehner said they were a precursor to “government-encouraged euthanasia.” Some contended that it was Obama’s way of trying “to kill granny.” This became a common attack, frightened many senior citizens, and clearly riled those who believed these characterizations. Although seniors would most have benefited from the provision, their fears caused the item to be dropped from the proposal. The Republican National Committee quickly switched gears and mailed a fund-raising letter suggesting that Democrats might use health care reform to deny medical treatments to Republicans. Prospects for reform looked dim.

**September and October, 2009: Supporters of Large-Scale Reform Strike Back.** By September and October, supporters of reform began to fight back. The AMA, the American Nurses Association, the American Association of

Opposition to the health reform plan grew increasingly visible in 2009, and many persons targeted their criticism to the larger role the federal government would have in health insurance.



Retired Persons, and columnists in a wide variety of magazines and newspapers challenged the accuracy of what opponents were saying. They referred to their arguments as “myths,” “falsenesses,” “an assault on truth,” and “lies” and they tried to calm public fears about reform. The Department of Health and Human Services published carefully prepared state-by-state analyses showing that residents of every state would benefit from reform. Congressional Democrats continued to tinker with reform bills, trying to find an approach that would be acceptable to all 60 Democrats and Independents in the Senate and perhaps capture some Republican support. Sixty was the magic number of votes needed to avoid a Republican filibuster and to secure passage. There was tremendous pressure placed on Democrats to support and on Republicans to oppose.

Then, another argument against the proposal surfaced. Democratic and Republican legislators who oppose abortion argued that the bill did not include any absolute assurance that public dollars could not be given to insurance plans that cover abortions. Supporters contended that the bill did not make any changes with regard to reimbursement for abortion, but conservative Democrats threatened to withdraw their support from the entire proposal unless changes were made.

**November, 2009: House Passes Reform Bill, But It Stalls in the Senate.** In early November, the House passed an amendment to put tight restrictions on abortions for those receiving services paid by federal dollars. That mollified conservative Democrats, and the House approved a health reform bill by a vote of 220 to 215 (Democrats supported it by 219 to 39; Republicans opposed it by 1 to 176). The bill was 1,990 pages long and made changes costing \$1.06 trillion over ten years. The bill went on to the Senate.

The Senate first had to vote to bring the bill to the floor, and assuming no Republican support, the vote of all 60 Democrats and Independents was needed. A roadblock occurred when Democratic Senator Ben Nelson of Nebraska and Independent Senator Joe Lieberman of Connecticut said they would not allow a

plan with a public option to be voted upon. Although the public option was a critical piece to contain costs, Democrats had no choice but to drop it. Recognizing that each Democrat and Independent had leverage to make demands for changes in the proposed bill in order to keep that person’s vote, the demands rolled in. Among them, Senator Mary Landrieu of Louisiana wanted \$300 million in extra Medicaid support for her state, Senator Nelson wanted to retain an antitrust exemption for the insurance industry, and Senator Bernie Sanders wanted \$10 billion more for community health centers. They all got what they wanted, and the bill passed with just the 60 necessary votes.

**December, 2009: Senate Passes Reform Bill.** The health reform bill came to the Senate in early December. As expected, the debate was rancorous with accusations flowing both ways. Once again, Democrats needed 60 votes to cut any Republican filibuster and pass the bill. Once again, demands were made by some of the 60. Senator Nelson wanted more restrictive language on abortion and said he would not vote for the bill unless he got it. He got it. Senator Liebermann (again) and Senator Nelson (again) said they would not vote for the bill unless the public option plan was eliminated (it remained in the version of the bill being debated in the Senate). They got it. Senator Nelson (again) wanted the federal government to pay for all of his state’s Medicaid expansion in perpetuity. He got it. Massachusetts and Vermont also got extra money for Medicaid. Connecticut got a medical school. Florida’s elderly were exempted from certain Medicare cuts. Many Senate Democrats expressed their disappointment about these “me first” tactics, but they had no choice but to accept them. The bill—2,074 pages plus 383 pages of last-minute revisions totaling \$871 billion over ten years—was passed on December 24 by a vote of 60 to 39 (all Democrats and Independents voting yes and all Republicans voting no).

**January, 2010: The Importance of a Single Vote.** What remained? Because the House bill and Senate bill had hundreds of differences on

details, a joint committee needed to be formed to make the two bills identical for a final passage. Some of these differences concerned critical matters on which one body or the other did not want to compromise. President Obama entered the negotiations. Progress was being made. A hybrid bill that would need to go back to the House and Senate for final passage seemed close. Then, something unexpected occurred. In a vote to replace Senator Ted Kennedy, who had died in August, Massachusetts elected Scott Brown, another Republican opponent. Suddenly, the 60 supporters had shrunk to 59. A crucial piece of the puzzle had changed, and the future of health care reform was in serious doubt. Democrats halted their deliberations on a reform bill.

**February, 2010: A Democrat–Republican Summit but No Change.** In early February, President Obama called for a new round of bipartisan talks on health care reform as a way of trying to salvage the bill. Republicans begrudgingly said they would participate, but clearly the power had shifted to their side. Public opinion polls showed a slight majority of Americans still wanting immediate health care reform, although they were almost evenly divided on the best approach. Three days before the summit, President Obama introduced a new proposal with some changes that he hoped would make conservative Democrats and Republicans more comfortable in voting for a bill.

The bipartisan summit did occur—a 7-1/2-hour televised event—and it was a detailed, deeply felt discussion of two completely contrary positions regarding health care reform. Neither Democrats nor Republicans wanted to compromise on their basic positions.

**March, 2010: Congressional Passage of Large-Scale Health Care Reform—but Not an End to Partisan Politics.** In mid-March, President Obama put forth a revised proposal (\$950 bill over ten years) that included ideas from both the Senate and House bills (but getting rid of all of the pet projects from individual Democratic and Independent legislators) and asked for a straight up-or-down vote on it. The hope seemed

to be that in this situation one or two Senate Republicans would vote for the bill, although that was considered to be extremely unlikely.

About this time, the process changed again. Democrats identified a way to pass the Obama proposal without having to go back to the Senate where their 59 votes would dictate defeat. The process called “reconciliation” would (1) have the House pass the Senate bill without making any changes to it (so the Senate would not have to vote on it again), (2) have the House pass a newly written second bill that makes changes to the Senate bill to bring the composite in line with President Obama’s proposal, and (3) have the Senate pass the second bill (although with this procedure only 51 votes would be necessary for passage). Republicans lashed into the procedure as being unethical, although they themselves had used the procedure on several occasions in similar circumstances. Enormous political pressure was placed on House and Senate members to vote in favor or against the bill.

On March 21, the House passed the Senate bill by 219 to 212 and the package of changes by 220 to 211. On March 22, the Senate passed the package of changes by 56 to 43 (one of the three Democrats voting no was Nebraska Senator Nelson). The House then passed the complete bill 220 to 207. No Republicans in the House or Senate voted in favor of any of the bills. On March 23, President Obama signed into law The Patient Protection and Affordable Care Act.

Was the battle ended? No. Even before the bill was passed, some state legislatures in conservative states voted that their citizens could not be required to buy health insurance. On the day of the signing, the attorney generals in 14 states (all conservative Republicans plus the conservative Democratic attorney general in Louisiana) filed legal challenges to the bill on this “no requirement to buy” rationale. Most legal scholars thought that the lawsuits had little chance—that federal laws routinely trump state laws. However, when Republicans gained control of the House of Representatives in the November 2010 elections, they initiated immediate conversation about the possibility of repealing the entire health reform bill.



On March 23, 2010, before a group of supporters, President Obama signed into law the Patient Protection and Affordable Care Act.

### Basic Benefits of Health Care Reform

The health reform plan will be implemented over a period of several years. Some provisions began as early as 2010, most will be in place by 2014, and some will go into effect between 2014 and 2019 (Barry, 2010). The basic benefits of health care reform are as follows:

1. Approximately 32 million additional Americans receive health care insurance.
2. Most people are required to have health insurance by 2014—this is referred to as the **individual mandate**. Subsidies to enable this purchase are provided for those with moderate or low income, and more people become eligible for Medicaid. If an individual does not obtain health insurance by 2014, he or she must pay a penalty of \$95 or 1 percent of income, whichever is greater. This amount increases in 2016 to the greater of \$695 or 2.5 percent of income. States must expand their Medicaid programs to absorb more low income persons or lose all federal support for Medicaid (which would be a catastrophic loss).
3. Health insurance companies are prevented from denying insurance on the basis of any preexisting conditions or placing a lifetime maximum on insurance benefits.
4. Several new health insurance benefits are required to be provided, such as coverage for adult children until age 26 and required coverage for preventive services, such as childhood immunizations, cancer screenings, and contraceptives.
5. State-run **health insurances** are created to offer a choice of private health insurance plans for people who are uninsured, self-employed, or between jobs.
6. Tax credits are offered to small businesses to assist them in buying insurance for their employees.
7. Several changes are made in Medicare to keep it financially sound for ten more years,

to guarantee basic benefits for everyone in Medicare, to make preventive care services free for most, and to gradually close the doughnut hole in drug coverage to make drugs more affordable.

8. Incentives are offered to physicians to encourage them to go into primary care practice including higher reimbursement levels (although there is general agreement that more needs to be done to ensure there will be sufficient physicians to treat the much larger number of insured persons).
9. Many additional provisions including the following:
  - requiring members of Congress to buy plans through the exchanges
  - taxing tanning parlor salons
  - providing new long-term care options
  - increasing funding for community health centers
  - providing bonus payments to primary care physicians practicing in underserved areas
  - denying use of the health insurance exchanges or receipt of subsidies to undocumented immigrants

### Who Will Pay for Health Care Reform?

The health care reform plan is estimated to cost \$940 billion over its first ten years. It will be paid for in the following ways:

1. An annual fee on health insurance companies of \$8 billion starting in 2014; the fee increases to \$11.3 billion in 2015, \$13.9 billion in 2017, and \$14.3 billion in 2018.
2. An annual fee on pharmaceutical manufacturers of \$2.5 billion starting in 2011; the fee increases to \$3 billion in 2012, \$3.5 billion in 2017, and \$4.2 billion in 2018.
3. A Medicare tax rate increase from 1.45 to 2.35 percent—on earnings over \$200,000 for an individual and \$250,000 for a family, and a new Medicare tax imposed on unearned income for the same groups.
4. Penalty payments from those not obtaining health insurance and from businesses with at

least 50 employees not offering health insurance benefit.

5. A tax on high-cost insurance plans.
6. Anticipated cost savings from efficiencies such as greater use of primary care physicians (with reduced reliance on more expensive specialists), more preventive care, many fewer people using the emergency room for nonemergent care, and increased use of information technology.

### Who Benefits the Most from Reform?

1. The uninsured who will obtain health insurance through one provision or another. This will include the unemployed, self-employed, and people between jobs.
2. People with health problems who will no longer be disallowed or have a lifetime maximum on benefits.
3. Young adults who will be covered on family insurance plans until age 26.
4. Medicare beneficiaries who will receive added services and more complete coverage of drugs (although those on Medicare Advantage—private plans offering Medicare—will lose the subsidy).
5. People already with good, employer-sponsored health insurance who will be able to keep their insurance and get some added benefits.
6. Private health insurance companies, pharmaceutical companies, and other for-profit companies, which will continue to be run for profit and have additional members.
7. Primary care physicians whose compensation levels will increase.

### What Are the Key Criticisms of the Plan?

Conservative criticism of the plan centers on three key points:

- There is too much government involvement. As we have discussed in this chapter, congressional Republicans prefer a private market approach in all or almost all matters, and minimal involvement of government. Even when Medicare was passed in 1965, a majority

of Senate Republicans voted against. In a 2004 survey, access to health care coverage was the top health care priority for Democrats and Independents, but was not among the top four selections for Republicans (Public Opinion Strategies, 2004). **The Affordable Care Act** extensively utilizes both the public and private sectors but certainly increases government responsibility for paying for increased access to health care—something that has not been a Republican priority.

- The plan costs too much. Proponents of the plan acknowledge the high cost but argue that new revenues and cost savings will largely pay for the program. Opponents argue those approaches together will fall far short and that middle-income taxpayers will be called upon to make up the difference. Ironically, the public option that conservatives forced out of the bill was a primary mechanism to control cost increases by health insurers.

- Medical malpractice reform is not addressed. Conservative critics (and some from the left) criticize the reform package for not addressing tort (medical malpractice) reform. To the extent that the practice of defensive medicine in response to the threat of lawsuits is an important contributor to the high cost of care, the reform plan misses an opportunity to reduce these wasted dollars.

Liberal criticism of the plan centers on two key points:

- The plan does not provide health insurance coverage for everyone. There were 47 million uninsured persons at the time the Act was passed and that number had been expected to increase to about 53 million in 2016. The reform package is expected to cover an additional 32 million people by then, leaving about 21 million uncovered. About one-third of the remaining uninsured will be undocumented immigrants. Young people who are not covered on their family's plan and who would rather pay the financial penalty than purchase insurance will likely be the second largest group. The Congressional Budget Office predicts 4 million persons will opt for the penalty payment. That number is an

issue for those wanting our system to cover everyone—an important priority for Democrats and Independents.

- There is too much private, for-profit company involvement. If indeed the complexity of the plan and the retention of a strong private sector lead to or maintain high profit, administrative waste, exorbitant salaries, and continuing medical fraud, then an opportunity has been missed to make the system more efficient by spending fewer dollars on items other than health care.

### What Was the Successful Strategy in Getting Health Care Reform Legislation Passed?

How did things change from the lack of success of the Clinton proposal to the enacted legislation in 2010? Some analysts have suggested that a key was that Obama proposal leaders were more effective in dealing with key stakeholders in the reform debate. While political opposition from Republicans was intense, many stakeholders saw reasons to support in 2010 what they had opposed in 1993.

**Physicians.** While there was difference of opinion among physicians in 2010, surveys found that most physicians supported the reform proposal. For the first time, the AMA went on record in support. Many physicians expressed unhappiness with the lack of social justice in the health care system and appreciated that many formerly uninsured patients would now have their medical bills paid. (Nursing groups were strong supporters both in 1993 and 2010.)

**Hospitals.** Hospitals have been trapped between the demands of paying bills (and making a profit in for-profit hospitals) and providing charity care. The conversion of 32 million people to insured status means that the number of people unable to afford their hospital bills will decrease.

**Health insurers.** The health insurance industry was divided about health care reform but ended up agreeing to provide funds to help

support the system. When health reform looked inevitable, the greatest fear of the insurance industry was that either for-profit insurance would be banned or there would be a competing public, nonprofit insurance company created that would drive down industry profits. In return for allowing current companies to continue to dominate the market and creating the insurance mandate, they agreed to abide with new regulations, contribute funds annually to help support the system, and not to strongly oppose it. America's Health Insurance Plans, a major insurer lobbyist, advocated for much of the plan.

**Pharmaceutical companies.** Like health insurers, pharmaceutical companies feared the worst from health care reform—that caps would be placed on the cost of drugs (as other countries have done), lowering company profits. In return for not creating these caps, for further subsidizing the purchase of drugs for Medicare beneficiaries, and for not including provisions that would help generic drugmakers, pharmaceutical companies also agreed to help fund health care reform and not to speak strongly against it.

**Business groups.** While many business owners continued to oppose health care reform, and the U.S. Chamber of Commerce was a leading opponent, many large and small businesses supported reform and appreciated the subsidies that will help them offer health insurance to employees. (Most labor unions endorsed health care reform in 1993 and 2010.)

The support of these stakeholders is especially important because they all have powerful lobbying voices and lots of money to support lobbying. In 2009, health care interests spent \$652 million lobbying Congress, and they spent an additional \$160 million in the first three months of 2010. What health groups spent the most? The U.S. Chamber of Congress (by far) was the biggest spender, but the Pharmaceutical Research and Manufacturers of America, Pfizer, AARP, the AMA, the American Dental Association, Blue Cross-Blue Shield, and the American Hospital Association were all very large spenders. Lobbying efforts

can influence public opinion, but most funds are spent directly lobbying congressional members.

### How Much Did Public Opinion Influence the Process?

It is difficult to pinpoint the exact amount of influence that public opinion had on the 2010 health reform effort. However, several points about health-related public opinion can be identified:

1. Health care reform was and is extremely important to most people. It was consistently identified as one of the issues of most interest and concern in almost all surveys.
2. In pre-2010 reform polls, most Americans were highly critical of the health care system, and more than three-fourths supported a major change. They were concerned about high costs and the uninsured. Most were worried about paying for health care in the future. A majority believed the role of government should be expanded, and most believed that the federal government should guarantee health insurance for all Americans. However, most preferred something other than a government-run system (Blendon and Benson, 2009).
3. Most people had very limited knowledge about the health care reform plan. One pattern in survey responses emerged from comparing opinions about specific features of the proposed plan to one's overall position. At times when the public was about evenly divided about the bill, a large percentage of people supported all of its key provisions when asked about them individually. Many people were susceptible to the constant mischaracterizations of the plan (such as the "death panels").
4. Many people did not closely watch the political ins and outs of the legislative process. After the vote, relatively small minorities were familiar with the details of the political process. Only one-third of adults knew that no Republican in the Senate had voted for it.

## Constitutional Challenge

Opponents of The Affordable Care Act began almost immediately to attempt to overturn it. Some Republican-controlled states stated that they would refuse to obey aspects of the law. Lawsuits were filed in Circuit Courts with some ruling that the ACA was constitutional and some ruling that features of it were not constitutional. One judge ruled that the entire act was unconstitutional.

These conflicting decisions enabled both the Obama administration and proponents of the act and the opposing states and other opponents to appeal to the United States Supreme Court to decide on the constitutionality of the act.

The months leading up to the case and to its ultimate decision were filled with drama and conjecture about how individual justices would decide and how a majority of the court would rule. In March, 2012 the judges heard 5½ hours of arguments—an unprecedented amount of time in recent history—in favor of and opposed to the constitutionality of the law. The most important issue was whether Congress had constitutional authority to require private citizens to purchase health insurance. Should the Congress rule no on this issue, many believed the entire act would be unfeasible. The second most important issue was whether the law unconstitutionally coerces states into expanding their Medicaid programs. (The law required states to expand Medicaid or lose all federal funds for the program.)

On June 28, 2012 a highly divided court ruled 5 to 4 to uphold most of the features of The Affordable Care Act. The very conservative Chief Justice of the Court joined the court's four liberal justices in approving the constitutionality of the individual mandate. That decision meant that the ACA would go forward. However, the court also ruled that the Medicaid provision was unconstitutional and would need to be changed or eliminated. The court's four other conservative justices had voted to scrap the entire act.

In the ensuing years, the ACA as planned has been gradually implemented. The features of the plan that were rolled out first have succeeded in accomplishing their objectives. The number

of adults in their early and mid-twenties with health insurance has sharply increased. Much preventive care is now provided without charge, and more people are receiving preventive services. The cost of prescriptive medications for Medicare enrollees has declined. Individuals with preexisting conditions are able to access health insurance. More low-income individuals and families have been accepted by Medicaid. Efforts to identify and stop medical fraud of Medicare and Medicaid have significantly increased.

## Key Issues to Watch

Five issues in particular will be important to watch in the next few years.

1. Will states create their own health insurance exchanges or will the federal government have to be responsible for doing so? Approximately 20 states and the District of Columbia established their own exchanges for 2014—the first year possible. However, almost all Republican-controlled states have refused to do so. In these situations the federal government is creating the exchange for the state.
2. Will states expand their Medicaid programs to accept more low-income individuals and families? Even with the federal government funding the total cost of expansion for three years and 90 percent thereafter, many states have thus far been unwilling to participate. Potentially, this could create a significant problem in getting all low-income people covered.
3. Will the “women’s preventive care” package—including breast pumps for new mothers, domestic violence counseling, and birth control—without co-payments be maintained as a requirement of all health insurance policies? The mandated contraception coverage went into effect in October, 2012 but was delayed until October, 2013 for religious organizations. Some Catholic organizations have filed lawsuits saying that providing birth control to their workers violates the strictures of their faith. Others contend that contraception is an essential element of preventive care that should be available to all.

4. Will undocumented immigrants continue to be excluded from the various programs created by the law? Republicans have insisted on this exclusion, so the sizable number of undocumented immigrants is not currently covered by the law.
5. Ultimately, what will affordable care act programs cost? Everyone acknowledges that the cost of health care will continue to increase.

Affordable care act proponents contend that the law includes many features that will slow the rate at which these cost increases will occur and result in billions less being spent over time. Opponents of ACA contend that the law will accelerate cost increases and result in billions more being spent over time. This question will be able to be answered only as the many features of the law are implemented.

## SUMMARY

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Despite the U.S. health care system having many positive qualities, it has been rated unfavorably relative to the system in other countries. The system has been very inefficient, fragmented, and very expensive. It has been inaccessible to many people—especially the uninsured and underinsured. America spent 18 percent of its GDP on health care in 2011—more than any other country in the world—yet had more than 47 million people without health insurance.

The financing of health care is provided by a complex mix of employers, individuals and families, and the government. Over time, third-party payers have paid a greater share of health care costs. The implementation of Medicaid and Medicare has made the federal government the largest single purchaser of health care services.

Several factors have contributed to the rapidly escalating costs of health care, including the aging of the U.S. population, expensive new medical technologies, and medical

entrepreneurialism (including high profits, high administrative costs, exorbitant CEO salaries, and medical waste). In response, cost-containment strategies have been implemented, and the country has shifted to managed care.

Managed care organizations—such as health maintenance organizations and preferred provider organizations—combine health insurance and a health care delivery mechanism into a single package. They attempt to provide cost-efficient care by securing lower provider reimbursements, regulating patient care, and rewarding physicians for keeping patients healthy.

In 2010, after very contentious debate, the United States passed significant health care reform legislation—The Affordable Care Act. The legislation will bring health insurance to an additional 32 million persons over the next several years and modify the health care system in several important respects.

## HEALTH ON THE INTERNET

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The Centers for Medicare and Medicaid Services is responsible for collecting data about Medicare, Medicaid, and other government-sponsored health care programs. Connect to the CMS' Web site at

<http://www.cms.gov>.

By clicking on “Medicare” and “Medicaid,” you can connect to links with information about each

of these programs. How does Medicare work? What are the basic programs offered through Medicare? How does Medicaid work? What are the basic services offered through Medicaid?

Both Medicare and Medicaid will undergo change based on The Affordable Care Act. Find information regarding these changes within the Web site. What are the most important ways in which each program will change?

## DISCUSSION CASE

As described in this chapter, the U.S. health care system underwent a significant reform in 2010. However, many people still oppose the plan. Many conservatives would like to repeal the plan and reinstitute a larger emphasis on the private market. Many liberals would like to see the program amended to provide coverage for everyone and reduce the profit-making sector in health care. Many would like to see a simpler construction of the system. Consider the following issues that occurred during the health reform debate:

1. Should the United States move to a system that truly provides universal health

insurance coverage? What are the key arguments in favor and against?

2. Should people who are in this country without immigration documentation and their dependents be eligible for health insurance coverage provided with public dollars? What are the key arguments in favor and against?
3. Should the profit-making sector of the health care system be enhanced, maintained as is, reduced, or eliminated? Why?
4. Should the United States put a cap on drug prices to restrain costs? Given the extraordinarily high cost of many of the newer and future drugs, should the government prohibit their production or refuse to pay for them?

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# CHAPTER 15

## *Health Care Delivery*

### Learning Objectives

- Describe the key events in the origin and development of hospitals.
- Select and discuss three of the important issues facing hospitals today.
- Select and discuss two of the freestanding ambulatory and surgical sites. Identify and describe key reasons that nonhospital delivery sites have increased in importance.
- Describe what is meant by “hospice.” Describe the primary benefits of hospice care facilities and the primary concerns about their future.
- Compare and contrast informal and formal home health care.

Through much of the twentieth century, the private physician’s office—for primary care—and the hospital—for emergency, life-threatening, and surgical care—were almost the only medical treatment sites. However, in the last few decades, the health care delivery system has undergone a significant transformation, and now a wide array of care sites is available. This chapter describes and analyzes changes in five important components of the health care delivery system: hospitals, freestanding ambulatory and surgical care sites, nursing homes, hospices, and home health care.

### HOSPITALS

#### History

Although the first American “hospital” was founded by William Penn in Philadelphia in 1713, it was primarily created to provide shelter for the poor. The first hospital designed primarily to serve the sick was Pennsylvania Hospital, founded in Philadelphia in 1751 by Thomas Bond, a local physician, and Benjamin Franklin. The hospital began in a small, rented house that was capable of holding no more than 20 patients

but grew in stages till the early 1800s. The hospital was always crowded as the average length of stay was weeks or months long, but its main problem was a large influx of mentally ill persons who occupied most of the beds. These patients were eventually moved to a new facility in 1835.

Most of the general hospitals that were built in the late 1700s and the 1800s provided care primarily for people without family and without the financial means to acquire housing. Most were financed by charitable contributions, and many physicians volunteered their time. A steward or matron generally controlled the small staff and the patients, and a small number of women, assisted by a few volunteers, performed “nursing” duties. Most of the care focused on making the patients comfortable and preparing them for death.

With advances in science and the development of medical technologies, hospitals underwent significant transformation. By 1900, hospitals mostly admitted only sick but curable patients while other resources were sought for the elderly and the homeless. Religious appeals for funding gave way to a more secular approach that emphasized the value of hospitals

in treating illness and protecting the community against epidemics. As a result, cities of all sizes began to build community hospitals.

By 1920, the hospital had become the primary center of acute care treatment. Surgery was the key to both the growth and the increased status of hospitals, along with the development of a skilled nursing force and the introduction of ancillary services such as X-rays and laboratories. As the size of the hospital and the scope of its services increased, administrators were added to coordinate this work. The complex, bureaucratic hospital of today emerged (Rosenberg, 1987). Expansion in the number of community hospitals was spurred by the Hill-Burton Hospital Construction Act of 1946. This massive program committed nearly \$4 billion of federal monies and over \$9 billion of state and local government monies for the construction of new hospitals and the renovation of existing ones.

During the middle years of the twentieth century, the hospital became the primary acute health care organization and the center for the distribution of modern medical technologies. Advances in life expectancy and shifts in morbidity patterns from acute infectious diseases to chronic degenerative diseases resulted in a greater number of older patients who were chronically ill. This led to an enlargement of diagnostic services, an increased number of surgical procedures, and the development of rehabilitation units. In the remaining part of this section of the chapter, we will discuss developments in hospitals in the last few decades and especially in the last few years.

### Organizational Structure

Today's hospitals are highly bureaucratic and hierarchical social organizations exemplifying the key characteristics of bureaucracies explicated by Max Weber. They typically contain an authority hierarchy (although not pyramidal in shape), extensive rules and regulations, fixed areas of responsibility based on competence, recruitment based on merit, regular remuneration, promotion based on objective criteria, and separation between the power of a position and

of the incumbent. However, superimposed upon these bureaucratic traits are twin lines of authority that run throughout hospital decision making.

**Dual Line of Authority.** These twin lines are referred to as the **dual line of authority**. Figure 15–1 provides one model of hospital organizational structure. Most hospital departments report either to the first line of authority, the hospital administrator (generally a person trained in hospital or health administration and with a strong background in business), or to the second line of authority, the medical director or other person who is medically trained. Both the hospital administrator and the medical director are ultimately responsible to the hospital's governing body—generally a board of trustees.

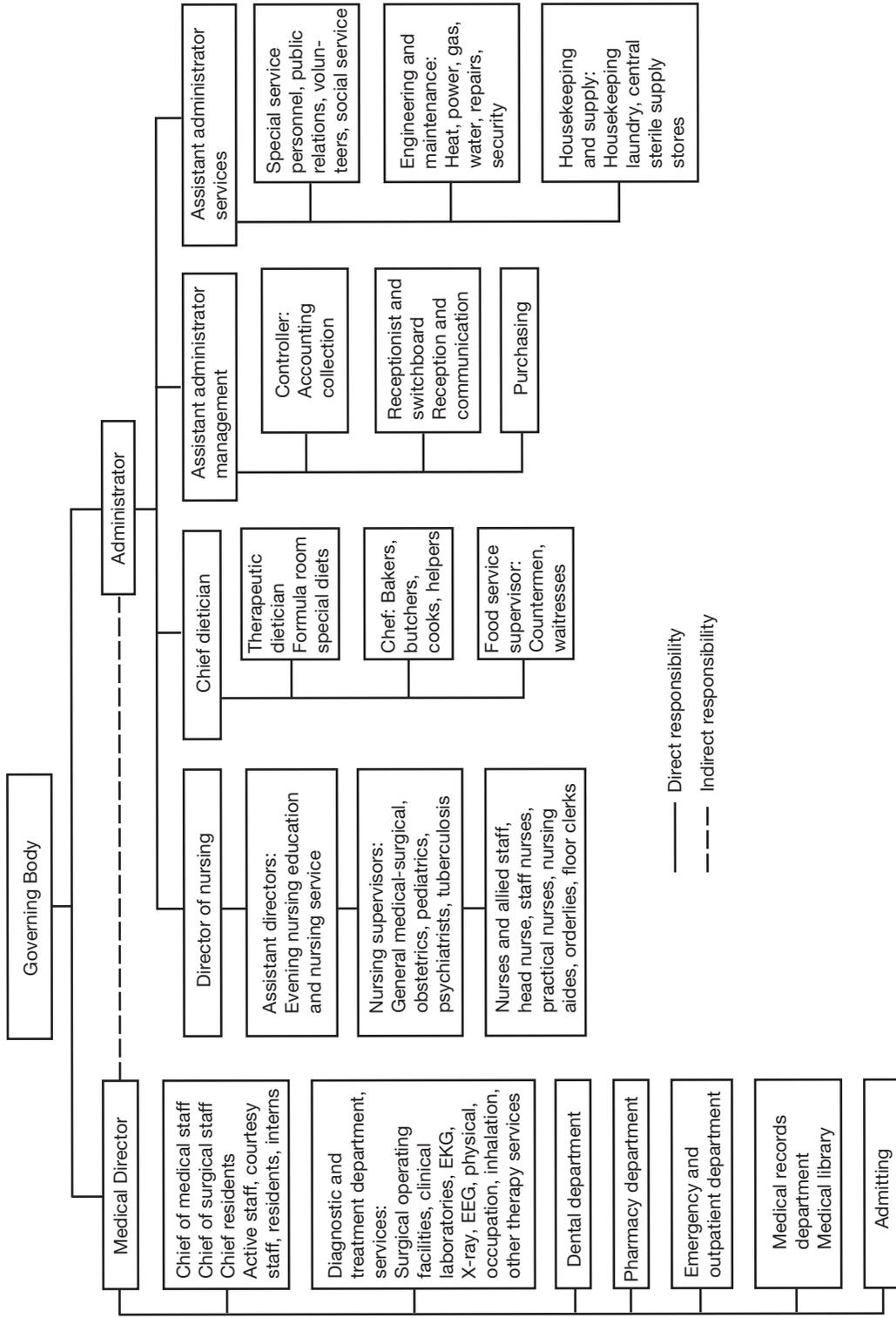
This dual system of authority frequently results in tension between the business orientation of the administrator and the clinical orientation of the medical director. Although both the administrative and medical staff share the primary goal of patient care, they do not always agree on related goals and the methods by which to achieve quality and efficient patient care. Fundamental to this conflict is that the administrator is responsible for the fiscal survival of the institution, and the medical staff is most concerned with clinical efficacy.

Related to this dispute is the struggle between professional autonomy and bureaucratic control. Given their medical expertise, physicians maintain that only they are competent to make decisions regarding patient care and to issue instructions to the medical staff. However, many issues related to patient care also involve administrative decisions, and thus physicians may perceive an impingement on their clinical autonomy.

Nurses and other ancillary health care providers can be placed in an awkward situation by this structure. They are expected to carry out physicians' orders at the same time that they are obligated to follow hospital protocol. Being responsible to both can lead to stressful, conflicting responsibilities.

Relations among physicians and hospitals involve more tension today than perhaps ever

**Figure 15-1** Typical Hospital Structure



Source: Department of Labor, *Technology and Manpower in the Health Service Industry* (Washington, DC: Government Printing Office, 1967).

**TABLE 15–1 Trends Among U.S. Hospitals**

Year	Hospitals	Beds (million)	Admissions (million)
1950	6,788	1.46	18.48
1960	6,876	1.66	25.03
1970	7,123	1.62	31.76
1980	6,965	1.37	38.89
1990	6,649	1.21	33.77
2000	5,810	98	34.89
2010	5,754	94	36.92

Source: National Center for Health Statistics. *Health, United States, 2012* (Hyattsville, MD: United States Department of Health and Human Services, 2012).

before. The fact that many physicians are establishing freestanding sites that offer services once found only in the hospital and the fact that some hospitals have hired more physicians from the community to work on staff and have bought out local physician practices has led to some erosion in the cooperation between the two groups (Berenson, Ginsburg, and May, 2007; Goldsmith, 2007).

**Personnel and Division of Labor.** In 2012, more than 18 million persons worked in the health care field in the United States. More than 7 million of these individuals—about 40 percent—worked in hospitals, and this number has increased almost every year. However, the economic downturn in 2008 and 2009 affected staffing levels at hospitals, and in some cases led to significant layoffs.

As medical science has become more technologically sophisticated, health care practitioners have become increasingly specialized and numerous new allied health occupations have emerged. In the last decade, most hospitals have added new technologies to their roster of services. For example, magnetic resonance imaging (MRI) did not exist in the early 1980s, but today there are more than 9,000 MRI units in the United States.

### The Number of Hospitals and Hospital Beds

The number of hospitals in the United States increased each year from the mid-1940s to 1979, when the number began to decline, resulting in

a total of 5,754 in 2010 (Table 15–1). Of these, 4,985 are short-term general hospitals. Since 1980, the number of hospitals has declined by more than 20 percent due primarily to the closing of rural and inner-city facilities.

The total number of hospital beds began to decline earlier than the number of hospitals, peaking in the mid-1960s at about 1.7 million and declining to just slightly more than 941,000 in 2010. The total number of hospital admissions increased each year until 1985 (when there were 36.2 million admissions), dropped for a few years, but in 2010 was back up to 36.9 million. However, given the increase in population in the last two decades, the likelihood of any one person being hospitalized continues to decline.

Why are the number of hospitals and the number of hospital beds shrinking? There are two main answers: changing insurance reimbursement rates and increase in the number of outpatient surgery centers. Hospital care is the most expensive form of health care. In order to keep their prices as low as possible, private insurance companies and managed care organizations have applied pressure, where feasible, to substitute other forms of care (e.g., outpatient surgery) for hospital care and to keep the number of days of hospitalization as low as possible. In addition, levels of reimbursement for hospitalized care, including from Medicare and Medicaid, are being controlled more tightly. These efforts have led to a reduction in hospital admissions and a decline in average length of stay. They have also led to an increase in the



The United States has approximately 5,700 hospitals employing more than 6 million workers. Physician-owned clinics (like the one pictured to the left in the photo) often locate adjacent to hospitals (pictured on the right).

number of surgical settings outside the hospital. With demand down, fewer hospitals and fewer hospital beds are needed.

### Hospital Ownership

There are three major types of hospital ownership in the United States:

- 1. Nonprofit (voluntary) hospitals** are the most common type of short-term general hospital in the United States. In 2010, there were 2,904 nonprofit hospitals in the United States—58 percent of all short-term community hospitals. As non-profit-making facilities, they answer to a board of directors that is typically comprised of community leaders, and end-of-year financial surpluses are reinvested in the hospital (as opposed to being paid to investors).
- 2. For-Profit (proprietary) hospitals** accounted for approximately 20 percent of all short-term hospitals. In 2010, there were 1,013 for-profit hospitals, an increase in the
- 3. Government (public) hospitals** represent the third type of ownership. There were 1,068 public hospitals in 2010, which accounted for approximately 21 percent of all short-term hospitals in that year. The number of public hospitals is declining. Most federally funded hospitals are for veterans and their families; state-funded hospitals tend to be part of the mental health system; and locally funded hospitals are typically designed to serve the general population but end up being the primary care site for the poor and medically indigent. Public hospitals have charity caseloads about four times larger than those of other hospitals. All these hospitals

last decade. These hospitals are created by individual or corporate entrepreneurs; they are sometimes “public” in the sense that shares in the hospital (or controlling agent) are bought and sold on the stock market and are sometimes simply privately owned. These hospitals are expected to have greater revenues than expenses each year so that the difference can be returned to investors as profit.

**TABLE 15–2** Number of Community (Short-Term) Hospitals

Ownership Type	1980	1990	2000	2010
<b>Total</b>	5,830	5,384	4,915	4,985
Nonprofit	3,322	3,191	3,003	2,904
For-profit	730	749	749	1,013
Government	1,778	1,444	1,163	1,068

Source: National Center for Health Statistics. *Health, United States, 2012* (Hyattsville, MD: United States Department of Health and Human Services, 2012).

rely on funding from the sponsoring government. Table 15–2 shows the changing number of hospitals from 1980 to 2010.

Until the beginning of the twentieth century, the majority of American hospitals were small, for-profit institutions owned primarily by physicians. Gradually these were replaced by larger and more sophisticated community or church-owned nonprofit hospitals. Beginning in the 1970s, considerable (and often very heated) debate about the role of profit-making hospitals was inspired by the growth of large conglomerates that purchased and ran multiple for-profit hospitals.

For several years, experts predicted that the for-profit hospitals would again assume control of the market. During the 1980s, however, cost-containment efforts reduced the profitability of hospitals and discouraged significant expansion of the profit-making sector. Since that time, the operating profit margin for hospitals (based on what is left of operating income after paying expenses) has been unstable (although hospital profits hit an all-time high in 2004). This helps to explain the fact that the percentage of hospitals that are for profit has increased, but only by a couple of percentage points.

### Multihospital Chains

The year 1968 is often cited as the key point in the development of large **multihospital chains** in the United States. In that year, two men—one a physician and the other an entrepreneur—joined forces to create the Hospital Corporation of America (HCA) to provide funds for capital

expansion for the physician’s hospital and to acquire additional hospitals. At that time, few of the nation’s short-term general hospitals were part of a chain (Light, 1986). Since then, there has been a significant growth of hospital chains—now the dominant form of hospital ownership.

### Megamergers

Perhaps the most significant trend of the 1990s was the hospital **megamerger**—the merger of hospital chains. As an example, in 1993, the second largest chain, Columbia Healthcare (94 hospitals), acquired the largest chain, Hospital Corporation of America (96 hospitals), for \$5.7 billion, creating a gigantic Columbia/HCA Healthcare company. Two months later, Healthtrust and Epic Holdings, two other large chains, merged to create a new company with 116 hospitals (a \$1 billion deal); it became the second largest chain. Tenet Healthcare Corporation was created from the merger of two other large firms: National Medical Enterprises and American Medical International. In most years there are hundreds of mergers and acquisitions, although the economic downturn in 2008 and 2009 decreased merger activity. As of 2011, HCA was the largest for-profit chain (137 hospitals and \$28 billion in operating revenue) followed by Community Health Systems (119 hospitals and \$11 billion in operating revenue) and Tenet (48 hospitals and \$8 billion in operating revenues).

With the economic rebound in 2010, significant consolidation action has resumed. More than 100 hospital deals occurred in 2012 alone

leading many analysts to believe that the stand-alone hospital will soon disappear. Why is this occurring? Hospitals are under intense pressure to lower costs, the number of patients is stagnant, and fewer patients are spending nights in the hospital (decreasing that revenue stream).

In the last decade, several of these large corporations have been under federal investigation, criminal indictments have been filed, and a megacorporate shakeup has occurred. For example, in 2003, HCA agreed to pay \$871 million to settle allegations of health care fraud (filing false claims for Medicare and Medicaid and paying kickbacks to doctors so that they would refer patients to its hospitals). This settlement brought to more than \$1.7 billion that HCA has paid in recent years in civil fines and criminal penalties. In 2005, Tennessee senator and senate majority leader at the time, William Frist, whose family had helped create HCA, agreed to pay shareholders \$20 million to settle a lawsuit that he had personally benefited financially from false reporting of company profits (he had sold all his HCA stock two weeks before it dropped significantly). In 2006, the Frist family and other personal investors bought the company for \$33 billion and converted it from a public company (with shares sold on the stock market) to a privately held company. In 2010, they announced the company would again go public.

### Key Issues in Hospitals

**The Relative Contributions of Not-For-Profit and For-Profit Hospitals.** Advocates of not-for-profit hospitals contend that it is inappropriate to make a profit from patients' ill health. Through the first decade of the 2000s, for-profit hospitals made 4 to 7 percent profit each year except during the economic problems of 2008 and 2009. They posit that managers of nonprofit hospitals are able to focus on the needs of patients and the resources necessary to meet those needs without having to consider the profitability of choices made. Because they do not need to earn a profit, their fees reflect only enough money to cover all expenses plus additional money necessary for capital and service

improvements. Nonprofits spend much more money than for-profits to provide services for patients unable to pay—thus making a significant community contribution.

The total annual value of uncompensated hospital care is approximately \$40 billion—holding relatively steady at about 6 percent of expenses. Uncompensated care is the total amount of care provided to patients who are unable or unwilling to pay. It is comprised of **charity care**—the value of care provided to patients who have been deemed by the hospital to be unable to pay (usually determined prior to admission)—and **bad debt**—the value of care provided to patients who are unwilling to pay (but have not requested charity care). When a hospital has uncompensated care, it must find the money someplace else. Hospitals do this by **cost-shifting** to other payers—usually those covered by private health insurance and especially the uninsured who are paying out of pocket. Thus, uninsured payers are helping to pay for the care of uninsured non-payers (Anderson, 2007).

A 2009 case in California illustrates the pattern. Emergency room physicians spent five minutes trying to revive the life of a college student who had been severely beaten in his dorm room. Everyone acknowledged that the effort to save him was heroic, but the young man died. The hospital, incorrectly thinking he was uninsured sent a \$29,000 bill to his parents. Had the hospital known he was insured, it would have sent the bill to the insurer, who would have paid a considerably lesser amount based on what they had negotiated.

Proponents of not-for-profit hospitals have charged that the for-profits use a variety of techniques to discourage access by poor patients. One way that this is done is by for-profit hospitals locating in more affluent suburban areas where many patients have private insurance and where they can target marketing campaigns to these middle- and upper-class persons (a process called **cream skimming**). In the early and mid-2000s, there was a boom in hospital construction in the United States, and it was largely new, high-tech, high-amenities hospitals being built in suburban areas replacing older downtown

facilities. This relocation contrasts with where need is greatest.

A second way that for-profit hospitals discourage poor patients is by conducting “wallet biopsies” in order to refuse uninsured patients access to the hospital. If the patient needs to be seen, the for-profit arranges a transfer to a nonprofit or public hospital, assuming it will accept the patient (a process called **patient dumping**), which some analysts believe happens frequently. Prompted by reports that hospitals sometimes turned away even emergency patients because they would be unable to pay for medical care, the federal government passed legislation in 1986 to stop this patient dumping. The law requires hospitals to medically screen all emergency patients and prohibits them from transferring patients with unstable medical conditions or women in labor to other facilities for economic reasons. The maximum penalty for each violation is \$50,000 and the possible loss of Medicare funding. Occasionally, however, patient dumping stories still occur.

On the other hand, advocates of for-profit hospitals contend that the business approach that they bring to health care leads to both the highest quality of care (because they must attract enough patients to earn a profit) and greater efficiencies (because eliminating waste maximizes profit). For-profit advocates also emphasize that the considerable taxes they pay make an important contribution to their communities, a contribution that is not made by the tax-exempt nonprofit hospitals.

Recently, many local, state, and federal government officials have expressed concern that some nonprofit hospitals have failed to invest enough of the difference between their income and expenses to provide services for the community’s indigent. For some community hospitals in recent years, this margin (even after deductions for depreciation, overhead expenses, and community service projects) has approximated that of for-profit hospitals. Community hospital administrators report that much of this money has been placed in reserve accounts that may be needed should an increasing number of persons lack the ability to pay for care. However, the tax

exemption for nonprofit hospitals is in jeopardy in a few states. Both for-profits and not-for-profits are devising more sophisticated means of calculating the value of service rendered to the community.

Both for-profit and not-for-profit hospital administrators acknowledge that the large number of uninsured persons unable to pay for hospital care is a significant problem within the health care system. As an example, in the late 1980s, a young man in Georgia, without medical insurance, suffered burns over 95 percent of his body and was taken to the closest medical center (which did not have a burn unit). The medical center contacted more than 40 hospitals with burn units—both within the state and in neighboring states—both for-profit and nonprofit—asking each to accept the patient. All refused, mainly due to the anticipated high costs associated with treatment and the likelihood of not being paid. Finally, a hospital in Baltimore, Maryland, accepted the patient, and he was flown there.

A case with some similarity occurred in 1998 at a California hospital. A woman who was having painful contractions and breathing problems due to asthma, and was about to give birth, requested an epidural (which allows a woman to remain awake during labor while blocking pain in the lower part of the body). The anesthesiologist demanded \$400 in cash on the spot and refused the woman’s offer of a credit card, check, or Western Union number for cash confirmation. The epidural was not given.

**The Effect of Multihospital Chains on Independent Hospitals.** Hospitals that are members of multihospital chains have several advantages over independent hospitals. Among the most important advantages are (1) economies of scale in purchasing—the chains buy more products and get a lower per-unit cost, (2) greater negotiating leverage with managed care networks and health insurance companies—they can offer more favorable rates due to the larger number of people being covered, (3) greater ability to share the costs of new technologies, and (4) elimination of some duplication of services.

Lacking these benefits, independent hospitals have been put into a squeeze. Especially hard-hit have been black-owned hospitals. Between 1961 and 1988, 57 of the country's 83 black-owned hospitals closed and an additional 14 others either merged, converted, or consolidated. Today, there are only a few black-owned hospitals in the United States, and some of these are in serious financial condition. Traditionally, these hospitals have served the uninsured who could not receive care elsewhere. Their demise has left a significant gap in hospital services for the poor and medically indigent.

Recognizing the problem, many of the nation's independent hospitals have responded with a strategy that includes both horizontal and vertical integration of services. In order to capture some of the same economies of scale and other advantages of the hospital chains, many independent hospitals have themselves consolidated—a process referred to as **horizontal integration**. Theoretically, this creates the same bargaining and powers of leverage that exist in the for-profit chains. Many not-for-profit hospitals have also engaged in **vertical integration** activities. A common procedure is the creation of a corporation (often a holding company) that owns both non-profit-making (including the hospital) and profit-making enterprises. Sometimes the profit-making companies are health related (e.g., hospital supply companies), which gives the conglomerate control over various levels of health care, and sometimes they are unrelated to health care (e.g., real estate companies). These arrangements allow the hospital to retain its non-profit, tax-exempt status while it secures access to the funds raised by the profit-making companies (although taxes are paid on these profits).

In the last decade, many not-for-profit hospitals have been acquired by for-profit chains and converted to profit-making status. With many nonprofits struggling financially to compete and with “acquisition fever” running at a high level, several nonprofit hospitals have chosen to sell. This has resulted in some very bitter debates between profit-making companies and community representatives who wish to retain the hospital's not-for-profit basis, and also between the

companies and groups of physicians affiliated with the hospital, who do not wish ownership of the hospital to change (Claxton et al., 1997). Physicians in New York City, Los Angeles, and other cities have gone to court in attempts to halt these mergers and acquisitions.

**The Survival of Public Hospitals.** While many independent hospitals have found means to compete with the multihospital chains, public-supported hospitals have fared less well. Public hospitals are confronted with twin problems: (1) The number of patients unable to pay their hospital bills is escalating rapidly (more than one-third being unable to pay their bills), and (2) there is more competition for patients able to pay (and whose payments traditionally have helped subsidize the charity cases). Fewer paying patients and more nonpaying patients have placed many public hospitals—which often provide the only available hospital care for the medically indigent—in a desperate situation.

In order to help take up the slack, public hospitals have postponed needed capital improvements and service developments, and thus they have become a less desirable care option for insured patients. They tend to do less well on quality assessment and have a more difficult time improving performance (Werner, Goldman, and Dudley, 2008). Even at that, many public hospitals lose money year after year. Can this situation continue indefinitely? No—the survivability of public hospitals is at stake. For a view of the role of public hospitals in a special situation, see the accompanying box, “Hurricane Katrina and the Resulting Health Care Crisis.”

**Reconfiguration of Patient Care Services.** Today's economic marketplace for hospitals is very different from that which existed only a decade ago. The days of rapid expansion of facilities, services, staffing, and prices are rapidly disappearing. In order to compete in the new managed care environment, hospitals realize that they need to become leaner, more efficient, and more diversified than they have been in the past. In what ways is this happening?

First, most hospitals are attempting to significantly *reduce expenditures*. They are doing this by eliminating inefficiencies (e.g., reusing supplies that once were discarded) and downsizing staffs. Studies show that not only the positions of hourly wage workers have been cut but that positions of nurses, senior and middle managers, and medical technicians have also been cut back.

This downsizing has been controversial, but hospitals have determined that labor costs had to be reduced. In addition, hospitals are beginning fewer construction projects and purchasing less large equipment. At the turn of the twenty-first century, however, much of the downsizing had already occurred, and most hospitals now anticipate steady staffing levels at the new, lower level.



## IN THE FIELD

### HURRICANE KATRINA AND THE RESULTING HEALTH CARE CRISIS

On August 29, 2005, Hurricane Katrina landed in the Gulf Coast states of the country and created massive destruction throughout the region. Louisiana, Mississippi, Alabama, and Florida experienced significant destruction. The city of New Orleans, long feared to be vulnerable should a hurricane strike, was especially hard hit. Two flood walls and a levee collapsed, unleashing torrents of water that covered 80 percent of the city. Residents of the city without the means to have evacuated prior to the arrival of Katrina were housed at the Superdome. The city and rescue workers “faced oppressive heat, darkness from downed power lines, difficulties communicating by telephone, little fuel for their cars, and widespread devastation” (Wilson, 2006).

A 2006 survey of the effects of Katrina estimated that 1,500 lives were lost, 780,000 people were displaced, 850 schools were damaged, 200,000 homes destroyed, 18,700 businesses destroyed, and 220,000 jobs lost (Louisiana Recovery Authority, 2006). As much of a public health emergency as was created during and in the immediate aftermath of the hurricane, the longer-term picture is also a reflection of serious problems.

Threats lie in the mountainous debris; faulty sewage treatment; toxic chemical and oil spills; contaminated water; swirling dust; pesky insects and vermin; and mold, mold, and more mold. (Wilson, 2006:153)

Moreover, New Orleans has one of the nation’s highest rates of poverty and lack of health insurance. These residents took the

brunt of hurricane damage. They rely on a system of state-run public hospitals and a network of more than 350 clinics that primarily serve the poor and uninsured. Altogether, the city lost 7 of its 22 hospitals and more than half of its hospital beds. The Medical Center of Louisiana at New Orleans consists of two hospitals that are the safety net for the uninsured. Both were severely damaged. An interim and much smaller version of University Hospital opened in 2006; Charity Hospital never reopened. Long-term care facilities and mental health services and emergency room resources were especially hard hit. Many health care providers who evacuated from New Orleans just prior to the hurricane have decided not to return from the disasters (Rudowitz, Rowland, and Shartzer, 2006).

Post hurricane, some policy analysts hoped that the catastrophe would be a stimulus to rebuild a stronger and more accessible health care system than that which existed prior to Katrina. With a \$100 million grant from the federal government, a system of more than 90 community health centers based on the medical home model has been established. The expanded use of electronic health records has been extremely helpful. Area medical schools and their faculty and students have provided significant help. Some observers now call New Orleans’ efforts a model for big city downtown health care renewal. While much work remains to be done in New Orleans and throughout the country in readiness to deal with the health consequences of natural disasters, significant progress has been made.

In recent years, a new medical specialist—the hospitalist—has emerged. Hospitalists are physicians who work in and for a hospital and focus just on hospitalized patients. Most have a background in primary care. Currently, there are more than 30,000 hospitalists in the United States, and that number is expected to increase. Hospitals hope that these specialists will help to closely manage the care of each hospitalized patient, improve patient outcomes, and be economically efficient. They also save office-based physicians the need to check in personally each day with their hospitalized patients—a benefit given the shortage of primary care physicians in the United States (Lopez et al., 2009; Williams, 2008).

Second, many hospitals are *diversifying patient care services*. Prompted by the cost-containment environment and the increased willingness of Medicare, Medicaid, and private insurance companies to pay for low-tech, out-of-hospital services, hospitals are offering a wider variety of nonacute care services. The best illustration of this shift is the increasing number of outpatient primary care departments in hospitals and the increasing propensity of hospitals to do outpatient surgery. In 2011, outpatient revenues accounted for more than 40 percent of total hospital revenues—the highest ever percentage—and most analysts expect the percentage to continue to increase.

Hospitals were rather slow in recognizing the desirability of outpatient surgery, and the percentage of all outpatient surgeries done in hospitals declined in the late 1980s and early 1990s. Each year now, however, the percentage of hospital-based surgeries done on an outpatient basis increases (it is now almost 65 percent). Hospitals are also becoming major purchasers of freestanding surgical centers. While the reimbursement for outpatient procedures done outside the hospital is less, the costs to the hospital are far less, so that the hospital profit margin is greater.

Part of this diversification has not been of hospitals' choosing. A current and potentially significant trend is the movement of diagnostic treatment technologies to private, freestanding

clinics. Services such as nuclear medicine, once only available within hospitals, are increasingly available in private clinics. In many cases, the movement has been created by the bottom-line mentality in many hospitals, which is little focused on optimum patient care or a professional working environment (Stoeckle, 1995).

**More Efficient Use of the Emergency Room.** Almost all (95 percent) acute care hospitals in the United States have emergency units open 24 hours a day. Designed to provide care for acutely ill and injured patients, the emergency room (ER) has become something of a family physician for many people. In 2010, more than 129 million visits were made to emergency rooms—and in almost half of the cases, urgent care was *not* needed. Nearly as many patients complained of coughs and sore throats as those who felt chest pain. Approximately one-fourth of all acute care outpatient visits occur in the ER. Use of the emergency room has increased sharply in recent years even as use of other hospital services has leveled off. Because ER visits cost two to three times more than office visits, this adds to health care costs (Schuur and Venkatesh, 2012).

What motivates so many individuals to seek primary care services from the ER? Hospital emergency rooms appeal to people for several reasons: Access is relatively easy because it does not depend on affiliation with a physician, an appointment, or time of day; the availability of advanced technology leads to a public perception of high-quality care; third-party payers have historically covered emergency room visits; and hospitals are obligated to provide emergency care even if the patient is not insured.

Not surprisingly, lack of access to primary care—either financially or in available hours—is the main reason. Nonemergency visits to the ER are highest in areas where physicians are least willing to provide primary care to uninsured and Medicaid patients and where there are the fewest providers and facilities open outside regular business hours (O'Malley, 2013). In recent years there has been a significant

increase of patients experiencing dental pain. Because government programs do not cover adult dental care, many with dental pain go to the ER for pain medication even though dentists do not staff ER rooms and patients cannot get a genuine fix of their problem. Overall, persons receiving Medicaid are the most common users of the emergency room.

With cost consciousness now at a high level, services such as hospital outpatient departments are being developed so that people feel less need to obtain primary care in the hospital emergency room. In addition, both hospitals and entrepreneurial physicians are building stand-alone emergency care centers, which are designed to provide emergency care that is more convenient and less costly.

**Medicare Patient Readmissions.** In Chapter 14 we discussed the efforts of hospitals to save money on costs by exiting Medicare patients as early as possible. In the last few years this has become a major firestorm as records indicate many Medicare patients (more than 1 million per year) have to be quickly readmitted for the same or a related condition. The reason could relate to the healing process being insufficiently completed to not being able to get a prompt follow-up appointment to at-home issues such as an inability to get prescriptions filled. The estimated total cost of the readmissions is \$17 billion per year.

Readmission rates vary significantly from hospital to hospital and from region to region of the country. In 2010 by region surgical patients had from 7.6 percent to 18.3 percent odds of being readmitted within 30 days. Medical patients had from 11.4 percent to 18.1 percent readmission likelihood. In two hospitals in New York, more than one-third of discharged Medicare patients were readmitted within 30 days. Furthermore, readmission rates have been basically unchanged since 2004 when data on this were first collected and published.

In 2013 Medicare began levying heavy fines on hospitals with too many readmissions. Fines for hospitals that do not reduce readmissions could reach \$125,000 per hospital.

**Medical Errors.** Errors happen in medicine as they do everywhere. But, in the space of just a few months in 1995, an alarming and embarrassing series of very serious errors occurred in hospitals around the country. At one hospital in Tampa, Florida, in the space of three weeks, arthroscopic surgery was performed on the wrong knee of a female patient, the wrong leg was amputated on a 51-year-old male patient, and a 77-year-old man died after a hospital employee mistakenly removed his respirator. Around the same time, the wrong breast was removed from a mastectomy patient in Michigan, the prostate gland was removed from the wrong patient in Maryland, a drug overdose killed an award-winning health columnist in Massachusetts, and oxygen was accidentally shut off to dozens of patients for up to 15 minutes in a Florida hospital.

The number and severity of these cases raised the issue of the adequacy of precautions and safeguards taken by hospitals to minimize the chance of error. Investigators immediately promised to determine if particular kinds of hospitals or hospitals with particular structures or formal and informal protocols have greater likelihood of being the site of serious error. However, in early 1998, another flurry of reports was published. The Centers for Disease Control and Prevention reported that 2 million persons each year contract an infection while in the hospital and nearly 90,000 of them die from it. Several studies reported increasing evidence of drug errors in anesthesia and medications administered to patients.

In 1999, the Institute of Medicine published the first large-scale, systematic study on medical errors and their consequences. They reported that approximately 98,000 Americans die each year from medical errors and that millions more are injured. About one-third of these deaths occur in hospitals; the others in physicians' offices, nursing homes, and other care sites. This study received massive publicity and renewed calls for medical providers to take steps to at least significantly reduce the problem. A 2002 study reported that 1.7 million patients a year get care-related diseases resulting in 100,000

deaths. In 2005, researchers at Harvard's School of Public Health renewed the study. They found that some hospitals and other providers had made significant improvements, although the pace of change was very slow, but many had not. They reported that the number of fatalities annually was still about 98,000 (Leape and Berwick, 2005).

What have we learned since then? About 1,300 times each year, surgeons operate on the wrong person or the wrong body part. Once in every 5,000 surgeries, a medical instrument is left inside a patient's body. Medication errors are not uncommon. About 100,000 patients a year contract an infection in the hospital. Five to 8 percent of intensive-care patients on ventilators get pneumonia. One hundred patients a day wake during the middle of surgery. A 2008 study found more progress but most hospitals were still unwilling to install recommended safety procedures and checks published by the Centers for Disease Control and Prevention due to the required amount of time and costs. But some of the checks require little time and no money. Studies continually show that medical providers do not always wash their hands between patients and the lowest washing frequency is by physicians.

Many analysts contend that the errors are a symptom of a larger systemic problem: medical culture. Lucian Leape, a pioneer in patient safety, says that the health care culture in almost all hospitals is incredibly dysfunctional. Hospitals remain very hierarchical, and those lower in the hierarchy are very reluctant to call out those who are higher. So, a nurse may observe a physician breaking a protocol—for example, not washing hands between patients—but not say anything about it for fear of personal consequences. Peter Pronovost, author of *Safe Patients, Smart Hospitals*, identifies physician overconfidence and reluctance to admit errors or limitations as being part of this culture that endangers patients. In order to put dollars behind the campaign to improve patient safety, some private insurers and Medicare now refuse to pay any costs associated with medical errors and/or hospital-acquired illnesses.

One interesting suggestion for improvement that is now being implemented in some hospitals is increased *transparency*. This involves hospitals reporting data that would allow consumers to compare patient treatment, outcomes, and cost. For example, the Dartmouth-Hitchcock Medical Center in New Hampshire has developed a Web site that offers these kinds of data. Go to [www.dartmouth-hitchcock.org](http://www.dartmouth-hitchcock.org), click on "Quality Reports," then click on "Dartmouth-Hitchcock Medical Center: Quality Reports," and check out each of the following: "Heart Attack," "Pneumonia," "Overall DHMC Performance Results," and "What Our Patients Say About Us."

## FREESTANDING AMBULATORY AND SURGICAL SITES

**Ambulatory care** is personal health care provided to an individual who is not an inpatient in a health care facility. Ambulatory care services include preventive care, acute primary care, minor emergencies, and many surgical procedures, and they are provided today in an increasing variety of facilities.

### The Traditional Setting

The traditional and still most common means for delivering ambulatory care is by a private physician (working alone, with a partner, or in a group) in an office or clinic setting. About nine in ten active U.S. physicians are involved in patient care, and three-fourths of these physicians have an office-based practice (the other one-fourth are full-time staff, residents, or clinical fellows in hospitals). However, today, of more than 350 million annual visits for newly arising health problems, only 42 percent are made to patients' personal physicians. Visits to emergency rooms, outpatient departments, and specialists are in aggregate more common (Pitts et al., 2010).

Of physicians working in patient care, the long-term shift has been from solo practice (a physician practicing alone) to **group practice**

(three or more physicians formally organized and practicing together). About one-third of physicians in private practice now work solo or with a single colleague, and the remainder in group practice. Group practice began in the late nineteenth century in the United States with the establishment of the Mayo Clinic. The clinic started in the 1880s as a small but busy for-profit surgery practice involving a father and his two sons and grew into a mammoth clinic (that was converted to not-for-profit status) with enough staff to handle not only surgery but extensive diagnostic and preventive services as well (Starr, 1982).

With the growing awareness of the successful Mayo Clinic, the increasing specialization of medicine, and the positive experience physicians had with group practice during World War I, interest grew rapidly. By the 1930s, approximately 300 group practices existed, with a median size of five or six physicians (Starr, 1982).

Many physicians, however, expressed reservations about group practice. Some considered groups to be a threat to physician autonomy and to the sanctity of the physician–patient relationship. Many solo practitioners considered group practices to be a threat to their very existence, and many objected that the group format opened the door to corporate control of medical practice and erosion of clinical autonomy. Nevertheless, expansion of group practices has continued.

### Freestanding Sites

The number of both independently owned and hospital-affiliated **freestanding ambulatory care centers** has increased dramatically in the last several years. Services offered in these settings include primary/urgent care, diagnostic imaging, rehabilitation, sports medicine, dialysis, and minor surgery. Some of the most important of these care sites are described in this section of the chapter.

**Urgent-Care Centers (Walk-In Centers).** **Urgent-care (or walk-in) centers** provide services without an appointment for minor medical

problems such as a sore throat or a cut needing stitches. Developed in the early 1980s to attract patients needing acute episodic care, they are now often viewed as an alternative to the family physician because they offer a stable professional staff, and many are open for extended hours seven days a week. In 2011 there were more than 9,000 of these clinics, and they provided an estimated 3 million patient visits. About half are owned by physicians and about one-third by hospitals.

Patients of walk-in centers tend to be young to middle-aged adults who are attracted to these facilities by their convenience and flexibility. This group of patients experiences a higher incidence of acute episodic rather than chronic health problems so that continuity of care may be of less importance, and they are less likely to have established a relationship with a regular health care provider.

**Retail Store Clinics.** In the first decade of the twenty-first century, a new treatment site emerged inside retail chain stores or pharmacies including CVS and Walgreens. Target stores and Krogers are increasing their presence in the field, and Walmart anticipates having a thousand of its own sites within a couple of years. By 2012, there were approximately 1,400 of these clinics around the country (double the number from 2006) providing an estimated 7 million patient visits.

The typical retail clinic is a small, thin-walled structure built into an existing store. Nurse practitioners and physician assistants rather than physicians are the providers. At first, they offered a limited set of services including screening tests, adult vaccinations, written prescriptions, and treatment for straightforward and simple medical problems such as sinusitis. However, almost all the clinics now anticipate diagnosing and treating patients for chronic conditions such as asthma, hypertension, diabetes, kidney function, and high cholesterol.

The clinics emphasize their convenience to the many shoppers in these stores, that a patient can be seen without an appointment, that many of the clinics are open in the evenings and on

weekends when many physicians' offices are closed, the ease of filling a prescription at the care site, and lower charges for services. About half of the patients at retail clinics do not have a regular source of care. Charges are typically 30 to 40 percent less than in doctors' offices, less than for comparable services in physicians' offices, extended hours are offered, and typically there is much available parking (Bohmer, 2007). It was hoped that this model might be used to address the shortage of physicians in low-income areas, but these clinics have largely been established in more advantaged neighborhoods.

The lower charges and easy availability appeal to many patients and insurance companies. Many nurse practitioners see opportunities for them to become front-line providers. Many entrepreneurs see what could be a very profitable business model. However, some physicians have raised concerns such as lack of continuity and comprehensiveness of care and that the clinics typically see only the uncomplicated and least intensive conditions, which put more pressure on office and clinic physicians who will see only more serious conditions (Bohmer, 2007).

**Ambulatory Surgical Centers (Surgicenters or ASCs).** Surgicenters offer minor, low-risk outpatient surgery. Only a few years ago, the vast majority of surgical procedures were performed in hospital operating rooms on an inpatient basis. Today, an increasing proportion of surgery is done on an outpatient basis, much of it in facilities other than the hospital.

Studies have found that outpatient surgery for appropriate procedures is cost-effective and has equivalent or lower rates of complications and mortality. Approximately 65 percent of all surgical procedures today are done on an outpatient basis; two-thirds of these (more than 40 percent of all surgeries) are done in a freestanding facility. The most common outpatient surgeries are cataract surgery; removal of benign tumors; gynecological diagnostic procedures; and minor ear, nose, and throat procedures.

Outpatient surgery performed in offices/clinics and freestanding facilities is typically less expensive and more convenient than that done in hospitals and is done in an atmosphere where a higher priority is assigned to the physician-patient relationship. However, hospital-affiliated services have a more readily available emergency



Surgeries almost always took place in full-service hospitals earlier in history, and the patient stayed in the hospital at least one night. Today, outpatient surgeries in hospitals or freestanding sites (as is pictured here) are very common.

backup system and, if necessary, easier transfer to an inpatient unit.

The cost-efficiency of outpatient surgery is traceable to several factors. First, hospital stays are extremely expensive. Therefore, when recovery can occur at home or in a recovery center with minimal staff, less capital investment, and lower overhead than a hospital, substantial savings result. A surgicenter can also be more cost-effective because it is designed to accommodate only the less complex and low-risk surgical procedures and thus can avoid the purchase of some of the most sophisticated and expensive equipment. Moreover, ASCs operate with fewer legal regulations, thus eliminating associated costs.

### Federally Qualified Health Centers.

These are comprehensive health care programs that are funded by Section 330 of the Public Health Service Act and provide care for medically underserved populations. The almost 1,200 clinics operate at about 8,000 sites and are comprised of the following:

- *Community health centers* provide primary care for Americans who are uninsured. They are community based and led by boards of community residents.
- *Migrant health centers* provide health care services for migrant and seasonal agricultural workers.

- *Health care for the homeless programs* provide services for homeless individuals.
- *Public housing primary care programs* are located in and provide services to residents of public housing.

Originally conceived in 1965 as part of the War on Poverty, these centers are located in underserved areas, usually in inner-city neighborhoods and in rural areas, and primarily serve uninsured or publicly insured racial and ethnic minorities. Seventy percent of the patients live below the poverty line, two-thirds are racial and ethnic minority group members, and 40 percent have no health insurance. Services are offered on a sliding scale fee (what you pay is determined by your income). Studies show that a large majority of the 20 million users each year consider the centers to be their primary (and sometimes only) source of care.

**Free Health Clinics.** A free health clinic movement emerged in the United States in the late 1960s to establish free clinics for people unable to afford private care and/or for those estranged from the conventional medical system. The early clinics were targeted to people experiencing drug-related illnesses, problem pregnancies, and sexually transmitted infections. They were very much countercultural organizations that highly valued their independence—many

Free clinics emerged in the 1960s but have increased rapidly in the last decade as a community-based means for providing health care for the working poor.



even being reluctant to work with each other. They were genuine grassroots clinics started within communities, and they typically worked beside local medical care systems rather than with them.

The clinics have evolved in several ways from the 1960s and 1970s until today. The focus of the clinics has shifted more and more to serving either the very poor or the working poor (those who are working and are just above the poverty level but who do not have private health insurance or qualify for Medicaid). They have created strong state and regional associations and even a national association. In most communities they are a well-accepted and well-regarded component of the medical system, and they work closely with other medical providers (Weiss, 2006).

Although there are many variations in the more than 1,200 free clinics, most (1) offer primary health care services; (2) are staffed largely by volunteer physicians, other health care providers, and laypersons (about 90 percent of services are provided by volunteers); (3) serve people unable to afford private medical care; and (4) provide an atmosphere that emphasizes treating each patient with dignity and a supportive, nonjudgmental attitude. They have become a very important component of the health care system in the communities where they are located and often receive tremendous support from the professional medical community.

Free clinics provide care to approximately 4 million patients each year. In addition, many free clinics have helped to set up networks of local physicians who, rather than volunteer at a free clinic, accept free patient referrals from a free clinic in their own office. Financial support comes from several sources, including local and state governments, United Way, corporate donations, church groups, private donations, contributions (often in-kind) from the medical community, and patient donations (Weiss, 2006). The accompanying box “Focus on a Free Health Clinic” describes the evolution of a particular free clinic.

**Reasons for the Emergence of New Ambulatory Care Sites.** The emergence of

these ambulatory care sites is rooted in several changes within society and the medical profession. Like so many other changes, these new sites represent efforts to offer health care at a lower cost (walk-in clinics, retail clinics, and surgicenters) or to deter the medically indigent from using the very expensive care of the hospital emergency room as a primary care provider [Federally Qualified Health Centers (FQHCs) and free health clinics]. Lowell-Smith ties the development of walk-in clinics and surgicenters (and now retail clinics) to other factors:

Patient-consumers have become more mobile and thus less likely to establish a long term relationship with a physician. Patient-consumers have also become more knowledgeable in terms of their health needs and thus less likely to rely solely on the advice of a physician. In addition, there is the rise of convenience as a “cultural value.” This desire for health care when the patient wants it rather than when the physician is available has aided the growth of walk-in clinics and outpatient surgery centers . . . [Also] improvements in medical technology have made it possible for many tests and procedures to be performed outside the hospital and in ambulatory settings. (1994:277)

The Federally Qualified Health Centers and free health clinics are founded primarily on the desire to provide accessible health care (both financially and geographically) for persons not able to afford private medical care. Patients typically opt for these clinics not out of convenience, but out of need, and without programs of these types, even more persons would go without needed care.

## NURSING HOMES

Although the term is used in many different ways, a **nursing home** is a long-term, residential facility that provides nursing and other therapeutic and rehabilitation care services. Nursing homes serve mostly incapacitated elderly residents but also younger adults with significant physical or mental health problems. About 6 percent of older adults in the United States live in nursing homes.

Residential care facilities like nursing homes were first developed in the early 1800s. Prior to this time, communities offered only almshouses in which the incapacitated elderly were placed with the homeless, the mentally ill, and the chronically inebriated. However, women's and church groups, concerned that some elderly members of their own social class or ethnicity or religion might end up in the almshouses, began to establish benevolent care centers. These early nursing homes often required a substantial entrance fee and credentials showing good character and thus were limited to a rather small number (Foundation Aiding the Elderly, 2013).

Throughout the 1800s, communities established a variety of residential facilities such as orphanages, hospitals for the acutely ill, and mental health hospitals, and many residents of the almshouses were moved to more specialized facilities. In this way, the incapacitated elderly became a much larger percentage of the almshouses. By the 1930s society recognized that many elderly persons were permanently unable to care for themselves and that an improved system of residential care facilities was necessary. Nursing homes, as we think of them today, grew in number through the middle years of the 1900s and received a significant boost with the passage of Medicare and Medicaid in the 1960s. As the number of homes continued to increase, so did government concern with their quality, and the late 1900s was marked by increased inspection and required compliance with safety and quality guidelines (Foundation Aiding the Elderly, 2013).

### Types of Nursing Homes

The two main types of nursing homes are “skilled nursing facilities” and “intermediate care facilities.” Skilled nursing centers are for residents who require ongoing medical care such as respiratory therapy, physical therapy, occupational therapy, a feeding tube, or dialysis. These centers are staffed by registered nurses or licensed practical nurses who are available 24 hours a day. Intermediate care facilities basically provide residents with

assistance in performing life's daily activities such as feeding, personal hygiene, toileting, and bathing. These facilities are staffed primarily by certified nursing assistants. The term “nursing home” may also include “assisted living centers” in which seniors live on their own but receive assistance with meals, housekeeping, and medication and “independent living centers” in which seniors basically live on their own and care for themselves but have someone to check in on them periodically and provide them with transportation.

### Benefits of Nursing Homes

High-quality nursing homes provide a safe, healthy, and stimulating environment for seniors who are not able to live a fully independent life. The various types of nursing homes means that seniors can receive whatever services are necessary to maximize their independence.

### Concerns About Nursing Homes

When nursing homes function at less than high quality, they create living conditions that may be unsafe, unhealthy, and without desired mental stimulation. The Centers for Medicare and Medicaid Services, which conducts periodic evaluations of nursing home quality, rates each home from 1 star (lowest quality) to 5 stars (highest quality). In 2011, 15 percent of nursing homes received just one star and 20 percent received just two stars. Only 16 percent received five stars. Among the factors associated with low quality is the financial basis of the home. For-profit nursing homes are 40 percent of the total number but are 67 percent of the consistently lowest performers. There are many references to low-quality nursing home care in America, and these address a genuine concern that many seniors have. Concerns include:

1. **Neglect.** When the number of staff members is insufficient or staff is not properly trained or there is an absence of commitment to high-quality care, residents can end up with problems ranging from medication errors to bedsores to dehydration to intense boredom.

2. **Abuse.** Periodically, social scientific or clinical research or journalistic exposes uncover cases in which nursing homes residents have been physically or mentally or pharmaceutically (e.g., overuse of antipsychotic medication) abused.
3. **Accidents.** Especially in understaffed homes, serious resident accidents—for example, falls and burns—can occur.
4. **The high price of care.** In 2013 it was estimated that the median daily cost of a private room in a nursing home had reached \$230, that is, \$6,900 a month or almost \$84,000 per year. Assisted living care averaged about \$41,000 per year. Few individuals or families can afford such extraordinary costs. It has become quite common for individuals to intentionally almost deplete all their financial resources in order to qualify for Medicaid because Medicaid pays for

long-term care. Medicaid is the largest payer for long-term care, and paying for long-term care consumes nearly a third of Medicaid expenditures. This pattern sharply drives up the cost of Medicaid, which, as described in Chapter 14, is a major financial issue for state governments and the federal government.

## HOSPICES

The term **hospice** refers to a philosophy of providing care and comfort to people in the dying process. As far back as the eleventh century, the word was used to identify guesthouses and places of shelter for sick and weary travelers. During the 1960s, British physician Dr. Cicely Saunders developed a modern approach to hospice that emphasized professional caregiving



### IN THE FIELD

#### FOCUS ON A FREE HEALTH CLINIC

The Bradley Free Clinic in Roanoke, Virginia, was established in 1974 with \$250 in seed money, one volunteer physician, one volunteer nurse, and the free rental of the first floor of an old house (donated by the adjacent church). With the dedication of a small group of concerned citizens and the energy and enthusiasm of a barely paid director, the clinic was able to offer free health services to the local medically indigent two nights per week. The commitment of the director and volunteers was noticed in the medical community, by other lay volunteers, and by local governments—important factors in the clinic's subsequent support.

The clinic each year provides more than 20,000 patient visits at no charge, prescribes more than 50,000 medications (almost all of which are given at no charge out of the clinic's own pharmacy—filled mostly with drugs donated by pharmaceutical companies and local physicians), offers extensive dental services (mostly out of its own fully modern dental

operatories—supplied by donations of dental equipment companies and local dentists), provides countless hours of mental health counseling (by local professionals volunteering their time), and performs basic lab tests (in its own small laboratory of mostly donated equipment). The clinic now sits in its own medical building (purchased with funds from a \$1 million donation by a local philanthropist). The estimated value of annual services provided is more than \$4 million (Weiss, 2006).

Supplementing a small paid staff are a host of volunteers: 100 physicians who volunteer some time at the clinic, plus 50 specialists who accept free referrals of clinic patients; 60 nurses; 30 pharmacists; 12 laboratory technicians; 20 dentists; 15 dental assistants; a dozen mental health counselors; and scores of lay volunteers. Care is provided at no charge in an atmosphere of respect for the dignity of each patient. By 2011 the Bradley Free Clinic had provided care valued at more than \$55 million for more than 335,000 patients.

and use of modern pain management techniques to compassionately care for the dying. She worked with others in establishing St. Christopher's Hospice near London, a hospice that significantly influenced the creation of other hospices around the world. The first hospice in the United States was established in New Haven, Connecticut, in 1974.

During the years of its development, hospice has evolved from offering services only in its own locations to offering services within hospitals, nursing homes, and especially in the patient's own home. Surveys indicate that a very large percentage of Americans would prefer to die in their own home, and about 70 percent of hospice patients do so. There are approximately 5,300 hospice providers in the United States today. Hospices range in size from small, all-volunteer staffs who provide services for fewer than 50 persons per year to large, multi-hospice providers serving several thousand persons each day. In 2012, an estimated 1.54 million persons received hospice care, including just over 1 million who died during the year. Others were still in hospice care at the end of the year or had returned to curative care (National Hospice and Palliative Care

Organization, 2013). About 45 percent of people who died in 2011 were under the care of a hospice at the time of death.

**Benefits of Hospice.** Hospice services are available only to patients who have been attested by two physicians to be in the last six months of life. Hospices regard the dying process as being a normal part of life. They attempt to make patients as comfortable and pain free during these months as possible; they do not do anything to hasten or postpone death. The average length of stay in hospice is 70 days. Contrary to a popular perception, hospice patients on average live one month longer than comparable patients who do not receive hospice care.

Hospice staff may include physicians, nurses, social workers, counselors, home health care aides, clergy, therapists (physical, occupational, massage, recreational, music, art, pet, etc.), dietitians, and volunteers. Following are among the services offered to patients and their families (The Hospice Foundation, 2013):

- Knowledge about medical care and the dying process by specially trained professionals, volunteers, and families working in a team approach

Hospices provide many services to terminally ill patients and their families, including care and comfort, pain management, physical and emotional support, and grief counseling.



- Addressing all symptoms of diseases but with a special emphasis on controlling a patient's pain and discomfort (i.e., **palliative care**) and treating patients with concern and dignity
- Dealing with the emotional, social, and spiritual needs of patients and families
- Offering bereavement and counseling services to families before and after a patient's death

Payment for hospice services is covered by Medicare, Medicaid, and many private health insurance policies. Hospices work with uninjured patients to determine if they might qualify for any insurance or financial assistance. Often, patients do, and if not, many hospices will accept them anyway. The Medicare and Medicaid Hospice Benefit has been available for individuals whose condition requires reasonable medical and support services but no longer would benefit by curative services. If a patient lives longer than six months, payment continues as long as the attending physician still considers the patient to be terminally ill.

Beginning in the 1980s, some hospices converted to an "open access" model in which terminally ill patients could continue to receive chemotherapy and other curative treatments even while being under hospice care. In part this model was inspired by some AIDS patients who wanted to be in hospice care but also wanted to continue trying other medical options. The Affordable Care Act passed in 2010 directed the State Children's Health Care Program and Medicaid to immediately cover simultaneous medical care and hospice care for children with terminal illnesses. The law also calls for a three-year pilot program to test simultaneous care for Medicare patients (O'Reilly, 2010).

Several factors have contributed to the growth of hospices in the United States. These include the increasing number of older persons who are experiencing and dying from chronic and painful illnesses, the difficulties of patients and families having to contemplate death through a long period of dying, the increasing cultural value of "death with dignity," and

popular support for the humaneness of the hospice philosophy.

### Concerns About the Future of Hospice.

While hospice has become an increasingly popular concept and program in the United States, there are pockets of resistance. Some individuals are uncomfortable with any approach that conflicts with doing everything possible to prolong the life of a patient. The acceptance of death and the dying process that are part of hospice is objectionable to them.

Some hospice enthusiasts strongly prefer the original model of hospice as "an antiestablishment, largely volunteer movement advocating a gentle death as an alternative to the medicalized death many people had come to dread" (Henig, 2005:3). The open-access model in which patients may be receiving various forms of high-technology care concurrently with hospice care seems a contradiction to the kind of serene environment on which hospice was grounded.

This concern is amplified by the fact that ownership of hospice is shifting rapidly from the nonprofit to the for-profit sector. The hospice movement was entirely nonprofit in its origin, and as late as 1983, all U.S. hospices were nonprofit owned or government owned. However, by 2001, one-third of U.S. hospices were owned by individuals or companies seeking to make a profit (often hospitals or home health care companies). By 2011, about 60 percent of all hospice ownership was for profit (34 percent nonprofit and 6 percent government). The shift toward for-profit ownership has stimulated higher costs and significantly increased Medicare spending for hospice. In 2011 the nation's fastest-growing for-profit hospice owner agreed to pay \$12.5 million to settle Medicare fraud claims, and in 2013 the nation's largest for-profit hospice owner was sued by the Department of Justice for tens of millions of dollars in Medicare fraud (billing for ineligible patients and inflated services). Discussion of profit margins, productivity adjustments, and market efficiencies seem to many to clash with the original ideals of hospice.

Finally, there is some controversy about whether or not hospice eliminates any need for euthanasia. Some supporters contend that the management of pain and emotional support offered in hospice means that no one should have to suffer through the dying process and that euthanasia should never be necessary. Other supporters of hospice care argue that, in some cases, relieving significant pain can be very difficult and can only be accomplished through heavy sedation, and some dying persons also experience other unpleasant emotions such as frustration with confinement and psychic pain accompanying the loss of independence and body control. They contend that some of these patients may still prefer euthanasia (Burns, 1995). This issue, as the others discussed, will be very interesting to watch in the next decade.

## HOME HEALTH CARE

### Informal Home Health Care

Prior to the widespread development of hospitals and nursing homes, most people with illness and disability were cared for in the home by family members. As formal organizations developed for taking care of those needing assistance with basic daily tasks, the family and family setting became somewhat less important. However, **home health care** has always been relied upon by many individuals, and it has once again become more common. About one U.S. household in five provides informal caregiving for a person age 18 or older.

Almost all care for minor illnesses is taken care of without formal entry into the health care system. Symptoms are monitored, activity may be restricted, medications are taken, and special attention may be given to eating nutritious foods and taking in fluids. These situations may involve temporary and even meaningful inconvenience to family caregivers, but they are typically very short term. More intensive home care is provided for persons with chronic illnesses, disabilities, and mental retardation and for those who are dying.

Informal home care offers many important benefits: It can be very personal and nurturing, there is continuity of care, and it is usually not as isolating as institutional care. The very high cost of care in hospitals and nursing homes also makes home care advantageous.

But, there can be disadvantages. Some families are not able to provide the necessary medical assistance, assistance with daily living tasks, or nurturance. Some family members may be resentful of giving their time, energy, and resources to caring for another. Because this resentment may be difficult or awkward to express, inner tensions may develop that are ultimately vented by verbal or physical abuse.

Even when the caregiving is provided without resentment, the emotional burden can be great. Caregivers often become stressed out, develop health problems of their own, and many are not aware of effective coping and social support techniques. Many communities do have caregiver support groups, but some caregivers are unaware of them or too physically and emotionally tired to participate. About one-third of caregivers describe their own health as being fair to poor.

In addition, family caregiving tends not to be evenly distributed among family members. The obligation to care for ill members tends to fall disproportionately upon females in the family, especially the wife/mother. Women provide about two-thirds of informal caregiving, and about 60 percent of caregivers are also employed outside the home. Studies confirm that in most families, the adult female assumes the caring/nursing role, and this is true regardless of work and other commitments outside the home. Employed mothers report three times as many hours missed from work due to family illness as are reported by employed fathers.

The federal and some state governments have taken notice. Legislation has been passed to give family caregivers paid leave from work. Through the National Family Caregiver Support Program, the federal government now gives state and local governments funding to pass on to families in the form of services and support. Some states have created programs to work with

patients as they get ready to exit the hospital to plan for home health care.

### Formal Home Health Care

Formal home health care services began 100 years ago with the Visiting Nurse Society of New York. Other home care agencies developed over the years, but by the mid-1960s, there were just 1,300 such agencies in all of the United States. The enactment of Medicare in 1965 spurred phenomenal growth in the home care industry—to more than 9,000 Medicare-certified agencies today providing about \$60 billion annually of formal home health care. More than 8 million individuals currently receive home care services because of acute illness, chronic health conditions, permanent disability, or terminal illness. About two-thirds of patients are female, and about two-thirds are age 65 or older.

More than half of the nation's 1.2 million home care employees are home care aides. Registered nurses comprise the second-largest share of home health care workers—about 20 percent of the total—but the field also includes many licensed practical nurses, physical therapy staff, occupational therapy staff, social workers, and others. Employment

in home care is expected to increase by 70 percent by 2020. To date, physician involvement in home health care has been minimal. However, physicians are being called upon more frequently to participate in the planning and management of elderly patients at home, and many hospitals have initiated home care departments.

The largest payer for home health care is Medicare (about 37 percent of total payments), but Medicaid and state and local governments (both 19 percent of the total) are also significant payers. About 12 percent of payments are made by private insurers. Over the last 10 years home health care has become extraordinarily profitable—in part because wages for entry-level home care aides are among the lowest in the health care field leading to high job turnover. Home care companies have averaged 12 to 15 percent annual profit in the last several years.

Several factors are responsible for the growth of this industry, including the increased number of elderly persons with chronic conditions, the lower costs associated with home health care than institutional care, and cost-containment efforts by private insurers and the government that have led to earlier hospital discharges of sicker patients.

## SUMMARY

The sites in which health care services are delivered continue to change with the development of modern medical technology and in response to economic conditions. As cost-containment efforts and managed care have stimulated efforts to deliver care at lower cost, the number of admissions to hospitals and the average length of stay have declined. Hospitals continue as a central part of the health care system. Although the number of hospitals and hospital beds continue to decline, admissions are actually up. Hospitals today face several critical issues: the relative contributions of for-profit versus not-for-profit hospitals, the effect of large chains of hospitals on independent hospitals, the survival of public hospitals, reconfiguring patient ser-

vices to maximize marketability, making more efficient use of the emergency room, new penalties for Medicare readmissions, and curbing medical errors.

Ambulatory care is still most often delivered through physicians' offices or clinics but increasingly through group practices. However, the number of freestanding ambulatory care and surgical facilities has increased dramatically in recent years, especially walk-in centers, retail store sites, and surgicenters that appeal to young and middle-aged adults and to people without a regular source of care. The number of Federally Qualified Health Centers and free health clinics, designed to serve the poor and medically indigent, has also increased in recent years.

The importance of nursing homes within the health care delivery system has increased significantly. When they function with high quality, they provide a safe, healthy and mentally stimulating environment for seniors. But, many homes are consistently low-quality performers, and concerns about neglect, abuse, accidents, and their very high cost are serious.

Hospice care offers comfort, concern, and efforts to reduce the pain of terminally ill patients. The concept has been very positively received, and many people now enter hospice

care during the last days or months of life. Nevertheless, there are concerns about how the large-scale entry of for-profit companies into hospice ownership will affect this model of care.

Home health care is experiencing a revitalization as the population continues to age and the demands for lower cost services increase. Home care is much less expensive than alternative hospital and nursing home services. It offers many benefits to patients and their families but also carries with it some important concerns.

### HEALTH CARE ON THE INTERNET

The American Hospital Association (AHA) is the professional association of hospitals in the United States. Log on to its Web site at: <http://www.aha.org>. What is the “mission and vision” (click on “About”) of the American Hospital Association? What rights are emphasized in the AHA’s “Patient Care Partnership?” Click on “Eliminating Disparities in Health Outcomes.” Check out any two of the specific programs.

What are their objectives, and what are their plans?

Make sure that you understand the difference between a “federally qualified health center” ([www.cms.gov/center/fqhc.asp](http://www.cms.gov/center/fqhc.asp)) and a “free health clinic” ([www.freeclinics.us/index.php](http://www.freeclinics.us/index.php)). What are the key similarities and key differences between them?

### DISCUSSION CASE

An important issue within health care systems and one that is discussed in both Chapter 14 and this chapter relates to the relative benefits of for-profit versus not-for-profit facilities and services. Identify what you consider to be the major advantages of for-profit facilities and the

major advantages of not-for-profit facilities. The chapter discusses the fact that hospices are increasingly being owned by for-profit companies. Would you expect hospices to change based on the type of ownership? If so, how and why?

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## CHAPTER 16

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# *The Social Implications of Advanced Health Care Technology*

### Learning Objectives

- Identify five key recent advancements in medical technology.
- Identify and discuss five important social implications of rapidly developing medical technology.
- Explain the key arguments in support of and opposed to patients being able to demand and to refuse medical treatment. Identify and explain key arguments supporting and opposing the legality of physician-assisted suicide.
- Discuss important issues related to organ donation. Discuss important issues related to organ donation policy.
- Identify and describe four modern assisted procreative techniques. Identify and explain key arguments supporting and opposing the legality of surrogate motherhood.

The development of **technology**—the practical application of scientific or other forms of knowledge—is a major stimulus of social change in most modern societies. Western cultures subscribe to a belief system that prioritizes “technical rationality”—a mind-set that “essentially all problems are seen as manageable with technical solutions, and rationality (reasonableness, plausibility, proof) can be established only through scientific means using scientific criteria” (Barger-Lux and Heaney, 1986:1314). However, many social scientists believe that technology not only is influenced by cultural values but also in return has a powerful and deterministic effect on culture and social structure—a theory known as **technological determinism**.

Today’s health care system reflects the rapid rate of technological innovation in the last few decades. Hospitals and medical clinics contain sophisticated pieces of equipment and specially

trained personnel to operate them. The benefits of advanced health care technologies are apparent: more accurate and quicker diagnoses, effective treatment modalities, and increased life expectancy. However, there are also negative consequences of technological innovations, including increased costs, inequities of access, technological “advancements” that fail (e.g., the artificial heart and thalidomide), and troubling ethical issues (Chang and Lauderdale, 2009).

### SOCIETAL CONTROL OF TECHNOLOGY

Advocates view technological development as a means for society to fulfill its needs and to create a better life for its citizens. The need for more powerful means of information storage and processing produced the computer revolution. The

need for faster food preparation techniques for on-the-go families led to the microwave oven. Automobile air bags are a safety innovation in a society where thousands lose their lives each year in traffic accidents. According to this view (sometimes referred to as a *utopian* view), society controls the introduction of new technologies; technological advancements continue because they are beneficial to society.

Others, however, are concerned that technologies also create problems (a *dystopian* view). They critique modern societies (especially the United States) for a failure to systematically assess potential technologies in order to determine whether or not they should be pursued. Instead, American society is said to be controlled by a **technological imperative**—the idea that “if we have the technological capability to do something, then we should do it. . . . [it] implies that action in the form of the use of an available technology is always preferable to inaction” (Freund and McGuire, 1999:243).

Critics charge that this technological imperative is clearly demonstrated in medicine: in the desire of individual physicians to do the newest and most sophisticated procedures, even if more conservative treatment would be as appropriate; in health insurance companies’ greater willingness to pay for high-tech medicine rather than low-tech or nontech care; and in the march of hospitals to

create (and thus be forced to use) high-tech wards (such as coronary intensive care units), even when they are shown not to offer any consistent advantage over more conservative, low-tech, less expensive forms of treatment (Barger-Lux and Heaney, 1986; Freund and McGuire, 1999). Historian David Rothman argues that the insistence of the middle class to unfettered access to medical technologies has been the most important influence on America’s health policy for at least the last 60 years (Rothman, 1997).

## HEALTH CARE TECHNOLOGY

Advancements in health care technology occurred throughout the last century and the first part of this one, but the pace of development in the last few decades has been phenomenal. Bronzino, Smith, and Wade (1990) identify the following key advancements during these years:

1. **Cardiac technology.** Important innovations include the cardiac pacemaker, which senses the heart’s own electrical activity and paces it appropriately; the defibrillator, which maintains the rhythmic contractions of the heart to avoid a “heart attack”; and heart transplants.
2. **Critical care medicine.** Significant advances have been made in handling intensive care



Magnetic resonance imaging, which uses magnetic fields, radio wave energy, and sophisticated computer software, has enabled clearer and more detailed pictures of internal organs. MRI machines can cost up to \$3 million, and the average price per MRI exceeds \$3,500.

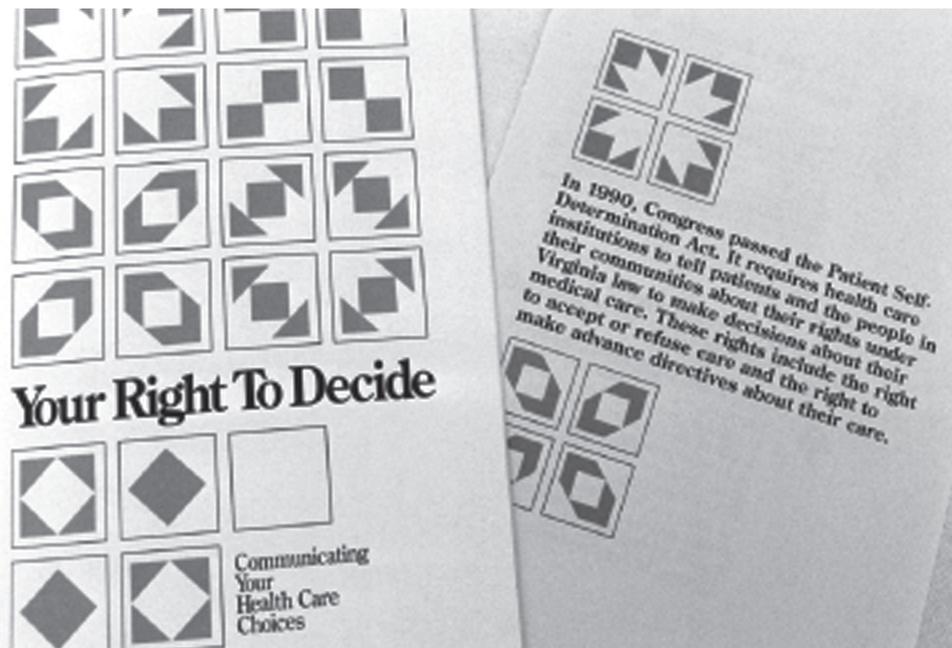
unit (ICU) cardiopulmonary patients (those with insufficient heart and lung capacity). An estimated 20 percent of all hospital patients require some form of respiratory therapy or support, including administration of oxygen to patients who cannot maintain adequate oxygen levels in their blood with their own breathing; performance of physical therapy to break up secretions and mucus in the lungs; and mechanical ventilation for patients unable to breathe on their own.

3. **Medical imaging.** Noninvasive techniques such as nuclear medicine, ultrasound, computer tomography (CT; also called computerized axial tomography—CAT), and magnetic resonance imaging (MRI) allow pictures to be taken of internal bodily organs. Recent advances provide even more information about bodily tissues.
4. **Health care computers (information technology).** These are used throughout the modern health care facility—in the clinical laboratory, in instrumentation, in building

patient databases, and in diagnostic support systems. Some analysts believe that in the near future tens of millions of Americans will wear wireless monitoring devices that automatically send vital signs to medical professionals—an extension of devices that now provide automatic fall detection. See the accompanying box, “Telemedicine.”

In addition, we are in the early stages of at least a fifth advancement:

5. **Genomic medicine.** While genetics examines single genes and their function, **genomics** examines the interaction of multiple genes together and in interaction with the environment. Many diseases including breast and colorectal cancers, HIV/AIDS, Parkinson’s, and Alzheimer’s can best be understood and addressed with this multifactorial approach. This knowledge is also leading to personalized medicine in which genetic tests determine the specific treatment that will be used for individual patients (Liotta and Petricoin, 2008).



Many hospitals now provide patients with a pamphlet that describes their right to compose a living will and/or to authorize a health care power of attorney. The Patient Self-Determination Act requires that hospitals make these options known to patients.

## The Social Implications of Advanced Health Care Technology

Sociologists and other social scientists have identified at least five specific social implications of advanced health care technologies.

First, advanced health care technologies create options for people and society. These include using today's sophisticated emergency personnel and equipment to sustain a life that once would have expired, cardiac bypass surgery (where blocked cardiac arteries can be replaced by veins taken from the leg), and assisted procreation.

Second, advanced health care technologies alter human relationships. The existence of technological apparatuses that are able to sustain life after consciousness has been permanently lost has caused families throughout the country to discuss their personal wishes and have created difficult decisions for family members of individuals whose wishes are unknown. Physicians and other health care professionals consider the option of "DNR" ("do not resuscitate") or "no code"—and engage family members in discussions about it.



### IN THE FIELD

#### TELEMEDICINE

The information superhighway has created many new opportunities for sharing, obtaining, and discussing information. While development and use of this technology in medicine (as in other fields) is still in its infancy, already some of the potential is evident. Research has found that more than 85 percent of physicians and 66 percent of adults in the United States use the Internet for health-related information retrieval (Parekh, Mayer, and Rjowsky, 2009). In one survey, about half of female respondents and almost 40 percent of male respondents said they check online for medical information before they contact a physician (Harris Interactive Poll, 2008). A dozen states have passed legislation that requires private insurers to cover services that are provided through telemedicine. Medicaid already compensates for telemedicine services in most states and will soon do so in all 50 states. More than one-third of physicians now e-mail patients, although 90 percent of patients would like them to do so. Following are some ways that the Internet is affecting health care:

- Some dot-com physicians ("cyberdocs") have established Web sites that patients (sometimes referred to as "guests") can contact and chat one-on-one with available physicians; these sessions are viewed as an alternative to an office visit; many physicians remain skeptical.

- Home health care nurses can "virtually" visit patients through monitors that enable the two to see each other while talking on the telephone and even to check the patient's heart rate (the patient uses a stethoscope; the nurse uses a headset attached to the computer). This is being referred to as "telehealth." More than a dozen states now allow doctors to treat patients and to prescribe drugs online without any personal contact.
- Anyone with Internet access can retrieve information about any health care condition and treatment from a variety of Web sources. This reduces the traditional dominance of the physician as gatekeeper to medical knowledge and enables individuals to directly access information. However, because well-educated middle- and upper-income individuals have the most Internet access, they will continue to obtain the most information.
- An estimated 40,000 to 50,000 smartphone health care applications are now available and they were downloaded an estimated 247 million times in 2012—a year in which the number of health app users doubled. The Food and Drug Administration predicts 500 million worldwide users in 2015. Especially popular is Epocrates, a drug reference tool with more than 330,000 active physician users, followed by UpToDate and

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Medscape—both clinical decision support reference tools.

- The reading of diagnostic tests is now sometimes “outsourced”—that is, it is read and interpreted by a physician in another country. For example, if a patient in the United States undergoes an emergency brain scan in the middle of the night, it will be electronically sent to a physician perhaps in India or Australia for interpretation rather than calling a radiologist into the hospital—this is referred to as “teleradiology.”
- Electronic files of patient data can be created, stored, and easily communicated to other involved health care professionals. Many analysts believe there is significant cost-saving potential through these electronic health records (EHRs) (Shea and Hripcsak, 2010). In 2013 the federal government announced that more than 50 percent of all physicians were using electronic health records.
- Medical journals can place abstracts or full text of articles on the Internet.
- Health education online games are being created for children and adolescents to teach about such things as healthy lifestyles and the importance of taking prescribed medications. Public health departments are using tools such as Facebook, texting, and twittering to provide easily available information to young people.
- Electronic support groups (“e-health”) are now available for thousands of diseases and conditions and millions of Americans. Research has identified benefits for users and especially for those who create health information through blogging and contributing to social networking on health topics (Ziebland and Wyke, 2012).
- Electronic mail can be used to enhance communication—especially among those located in rural areas without a wide support network.
- Online physician “report cards” are now available enabling patient evaluations of medical care providers.
- Educational courses can be offered on the Internet—as is already occurring in efforts to bring more public health information to health professionals and patients in Third World countries.

Assessment of these interventions is still in the early stages, but promising results have been found. However, it is clear that there is a wide range in the accuracy and quality of online health information, so consumers must remain very careful in selecting reputable sites (Goldsmith, 2000; Wachter, 2006).

Many people are concerned that the continuing introduction of advanced health care technologies has led to a dehumanization of patient care. Patients complain that physicians concentrate so much on the disease (in anticipation of selecting and using the appropriate technology) that they lose sight of the patient as a person. Feeling that they are being treated more like a thing than a person, patients despair that the warmth and empathy demonstrated by many physicians in the pre-high-tech era are being lost (Barger-Lux and Heaney, 1986). Discussion today of “cyberdocs,” “robodocs,” and “virtual doctors” indicates the increasing use of modern computer wizardry in medicine but suggests to many an increasingly distant physician–patient relationship.

Renee Anspach’s ethnographic work *Deciding Who Lives: Fateful Choices in the Intensive-Care Nursery* (1993) illustrates this concern. Anspach discovered that the different ways in which physicians and nurses relate to infants in an intensive care (IC) nursery affect their medical interpretations. Physicians, who have more limited contact with the infants and whose interaction is primarily technologically focused, rely on diagnostic technology to develop prognoses. Nurses, whose contact with the infants is more continuous, long-term, and emotional, develop prognoses more on the basis of their interaction and observations. While Anspach does not suggest that either prognostic technique is superior, her analysis demonstrates that one’s position in the social structure of the

nursery influences perceptions and that, to a certain extent, technology may “distance” the physician from the patient.

Third, advanced health care technologies affect the entire health care system. For example, technology has been the most important stimulus for the rapid increase in health care costs. An estimated half of recent health care inflation is due to new technologies. Much of the problem relates to increasingly expensive equipment like CT scanners and nuclear medicine cameras, which cost upward of \$500,000. The overall price tag for medical technologies in the world’s developed countries in 2010 approached \$1 trillion.

The United States is now confronting the realization that it cannot afford every potentially helpful medical procedure for every patient. Increasing the amount of funds spent on health care (already considered by many to be at an unacceptably high level) would mean reducing the amount of money spent on education, the environment, and/or other areas of government funding. When the country (i.e., the government or health insurance companies) chooses to subsidize new technologies, it is explicitly or implicitly choosing not to subsidize other health care programs.

These macro-allocation decisions have led to increasingly sophisticated means of technology assessment and cost-benefit analysis. Efforts have been undertaken to quantify the outcomes of implementing specific technologies and compare these outcomes with those expected from other health care programs. For example, should the government fund 50 organ transplant procedures or offer prenatal care to 5,000 low-income women? The accompanying box, “Technology Assessment in Medicine,” discusses this process.

These decisions also include value questions related to such issues as the amount of money spent on preventive care versus curative measures, the amount of money spent on people near the end of their lives, the amount of money spent on newborns who will require extensive lifetime care, the amount of money spent on diseases related to “voluntary lifestyles,” and

mechanisms to provide equal access to available programs.

Fourth, advanced health care technologies stimulate value clarification thinking. Medicine continues to raise issues that force individuals to confront provocative value questions about life and death.

As discussed in Chapter 4, the United States and other countries have recently mapped and sequenced the human genome (the complete set of human genes). The knowledge gained is dramatically increasing our understanding of human evolution and humans’ genetic relatedness with other organisms, the connection between genes and human behavior, and the relationship between specific genes and particular diseases. It is conceivable that this knowledge eventually will enable the elimination or control of all genetic diseases.

However, this process also raises value questions. For example, if all genetic diseases can someday be diagnosed and eliminated during fetal development, will such action be required? Would broad genetic screening programs with mandatory participation for all prospective parents or pregnant women be established? Would it be illegal or immoral to produce a child with an unnecessary genetic disease? Could such a child file a “wrongful life” suit against her or his parents?

Who should (or likely would) have access to genetic information about individuals? Would an employer have a right to a genetics background check of prospective employees? Would health insurance companies be able to require a genetics check-up when deciding whether or not to offer insurance to someone or in calculating the cost of the insurance policy? How would discrimination in hiring or insuring be proven and be handled?

In addition to doing prenatal therapy to correct defective genes, will it be permissible to do therapy to provide for genetic enhancements? For example, would it be legal to attempt to “boost” the intelligence gene(s), or would it be ethical to abort any (or even all?) fetuses with low intellectual potential? Should the government subsidize prospective parents who



## IN THE FIELD

### TECHNOLOGY ASSESSMENT IN MEDICINE

What is health technology assessment (HTA)? According to Lehoux and Blume (2000:1063), it is “a field of applied research that seeks to gather and synthesize the *best available evidence* on the costs, efficacy, and safety of health technology.” Littenberg (1992:425–427) recommends that any proposed medical technology be assessed on these five levels:

1. *Biologic plausibility* assesses whether “the current understanding of the biology and pathology of the disease in question can support the technology.”
2. *Technical feasibility* assesses whether “we can safely and reliably deliver the technology to the target patients.”
3. *Intermediate outcomes* assess the immediate and specific “biological, physiologic, or clinical effects of the technology.”
4. *Patient outcomes* assess “overall and ultimate outcomes for the health of the patient.”
5. *Societal outcomes* assess the external effects of the technology on society,

including the ethical and fiscal consequences.

A recent example demonstrating assessment of technology impact is use of surgical robots. They have received significant attention in the popular press and have become very popular in hospital operating rooms and among hospital marketing staffs. By 2012 more than 1,500 surgical robots were in use in the United States, and worldwide, more than 360,000 procedures were robot-assisted. They are, of course, very expensive. Typical cost is \$2.3 million each with \$135,000 additional annually required for service fees. Using surgical robots adds an estimated \$3,000 to \$6,000 to each surgery.

Assessment, however, has determined that there is no clear benefit of surgical robots over traditional, human hands-on surgery with regard to patient outcome (robotic surgery does require smaller incisions). Perhaps additional benefit will occur as the devices evolve, but thus far they seem to be mostly driven by the technological imperative.

want therapy to produce a taller offspring or a shorter one? What are the long-term implications for altering the gene pool? These questions exemplify the difficult value questions that are created by this new knowledge.

Finally, advanced health care technologies create social policy questions. Of course, issues that raise difficult value questions for individuals often raise complicated social policy questions for societies. Critics have charged that legislatures and courts have shaped policy regarding ethical issues in medicine prior to adequate public debate. This is beginning to change as these issues are now receiving greater public scrutiny.

An example of an advanced medical technology forcing social policy consideration occurs with **fetal tissue transplants**. The vast majority of abortions are performed in the first trimester

by the suction curettage method in which the fetus is removed by suction through a vacuum cannula. While the fetus is fragmented in this procedure, cells within tissue fragments can be collected. In about 10 percent of abortions using suction curettage (about 90,000 per year), the fragment containing the fetal midbrain can be identified and retrieved.

Research has demonstrated that transplantation of an aborted fetus’s midbrain can relieve or even cure certain diseases, including diabetes, Parkinson’s disease, and Alzheimer’s disease. A high rate of successful transfer is due partially to the fact that this very immature tissue is unlikely to be rejected by the recipient. In the early 2000s the issue became focused on the retrieval of stem cell—a universal cell residing in embryos and fetuses where it is called upon to construct hearts, lungs, brains, and other

vital organs and tissues. When retrieved, stem cells can be transformed or molded into any type of organ or tissue. The created organ or tissue would potentially be a cure for a wide range of diseases.

However, fetal tissue and stem cell transplants are opposed by most of those who believe that personhood begins at the instant of conception. Because the fetus or embryo is destroyed in the process of obtaining the tissue or stem cells, it is believed that the procedure (even for beneficial result) is an act of complicity in the ending of a human life. Presidents Ronald Reagan and George H.W. Bush placed a moratorium on publicly sponsored research on fetal tissue transplants. President Clinton overturned this ban. President George W. Bush enacted a policy that allowed research on a relatively small number of stem cell lines already in existence but prohibited public support for research on additional lines, thus restricting and reducing research in this area. President Obama issued an executive order restoring publicly funded research.

### Social Issues Raised by Advancing Health Care Technology

The remainder of this chapter examines three issues that raise questions about the rights of individuals and patients versus the force of technology. Each issue has led to serious discussion of the rights of individuals to access or refuse to access modern medical technology and of the responsibilities of society to control and regulate use of the technology. These questions involving individual choice versus public good and the means by which medical resources are allocated have become increasingly common as sophisticated high-technology care continues to be developed and made available.

Do patients have a legal right to refuse medical treatment—including artificial means of nourishment? Can patients demand a particular medical treatment even if physicians judge it to be futile? Can physicians participate in patient suicides? Should organ donation policies be revised to obtain more organs for

transplantation? Should there be more investigation of the way that human relationships are altered by decisions to give and receive an organ? Should assisted procreative techniques be made available to anyone who wants them? Is it proper for society to regulate these techniques and/or even to prohibit them?

### THE RIGHT TO REFUSE OR DEMAND ADVANCED HEALTH CARE TECHNOLOGY

Health care technology is at a stage of development in which it is often able to keep people alive but without being able to cure their disease, relieve their pain, or, at times, even restore consciousness. As this critical care technology (especially the artificial ventilator) has been developed and incorporated in hospitals, the customary practice has been to use it whenever possible.

Gradually, however, patients and their families have begun to challenge the unquestioned use of technology and have asked (in the words of the book, play, and film) “Whose life is it, anyway?” Patients and/or their proxies have become more assertive in requesting, and sometimes demanding, that the technology be withheld or withdrawn. In some circumstances, physicians and hospitals have complied, but, in other circumstances, requests have been refused. These situations have often ended in court hearings, and it has been the court system rather than legislators that has primarily dealt with the rights of patients/families versus the rights of hospitals/physicians to determine the use of, or refusal to use, advanced health care technologies.

### Do Patients Have a Legal Right to Refuse Medical Treatment?

Do competent patients, and incompetent patients through their representatives, have a right to refuse medical treatment? Or, are physicians and hospitals required (or, at least, lawfully able) to use all forms of medical treatment, including high-tech medicine, whenever they deem that to be appropriate? While this issue

has been discussed for many years, three landmark court cases have addressed this issue of “fundamental rights.”

**Karen Ann Quinlan.** In April 1975, 21-year-old **Karen Ann Quinlan** was brought to a hospital emergency room. She had passed out at a party and temporarily stopped breathing (during which time part of her brain died from lack of oxygen). Blood and urine tests showed that she had had only a couple of drinks and a small amount of aspirin and Valium, but that significant brain damage had occurred. Karen was connected to an artificial ventilator to enable respiration (see the box, “Defining Death”).

After four months, the Quinlans acknowledged that Karen was unlikely ever to regain



The Karen Ann Quinlan case of 1970s raised extremely difficult questions for her family—shown here—and for society and the medical profession about the right to discontinue medical treatment.

consciousness, and that she would be severely brain damaged if she did. Their priest assured them that the Catholic Church did not require continuation of extraordinary measures to support a hopeless life. The family asked that the artificial ventilator be disconnected. The hospital refused, arguing that Karen was alive and that it was their moral and legal obligation to act to sustain her life. The Quinlans went to court asking to be designated as Karen’s legal guardians in order that the ventilator could be disconnected. Part of the rationale offered by their attorney was that the Constitution contains an implicit right to privacy that guarantees that individuals (or people acting on their behalf) can terminate extraordinary medical measures even if death results.

The Superior Court ruled against the Quinlan family, but the case was appealed to the New Jersey Supreme Court, which overruled the prior decision and granted guardianship to Mr. Quinlan. The court ruled that patients have a constitutionally derived right to privacy that includes the right to refuse medical treatment, and this right extends to competent and incompetent persons.

After a protracted series of events, the respirator was disconnected. When this occurred, surprisingly, Karen began to breathe on her own. It was determined that she was in a **persistent vegetative state (PVS)**. In PVS, the patient is not conscious, is irretrievably comatose, is nourished artificially, *but* is respirating on his or her own. This happens when the brain stem is functioning, but the cerebrum is not. The eyes are open at times; there are sleep–wake cycles; the pupils respond to light; and gag and cough reflexes are normal. However, the person is completely unconscious and totally unaware of surroundings and will remain in this state till death (which may not occur for many years). At any one time, about 10,000 people in the United States are in PVS. It is not the same as **brain death**—in which neither the cerebrum nor the brain stem is functioning. To be sustained, patients require artificial nutrition and hydration but no other forms of medical treatment. To be clear, the court ruled about medical treatment



## IN THE FIELD

### DEFINING DEATH

The brain consists of three divisions:

1. The *cerebrum* (with the outer shell called the cortex; also called the “higher brain”) is the primary center of consciousness, thought, memory, and feeling; many people believe it is the key to what makes us human—that is, it establishes “personhood.”
2. The *brain stem* (also called the “lower brain”) is the center of respiration and controls spontaneous, vegetative functions such as swallowing, yawning, and sleep–wake cycles.
3. The *cerebellum* coordinates muscular movement.

Historically, death was defined as the total stoppage of respiration and pulsation. Any destruction of the brain stem would stop respiration, denying needed oxygen to the heart, which would stop pulsation; death would typically occur within 20 minutes.

This definition was rendered inappropriate by the artificial respirator, which, in essence, replaces the brain stem. It enables breathing and therefore heartbeat.

In 1968, the brain death definition of death was developed at Harvard Medical School. It defines death as a permanently nonfunctioning whole brain (cerebrum and brain stem) including no reflexes, no spontaneous breathing, no cerebral function, and no awareness of externally applied stimuli. Thus, if breathing persists, but only through means of an artificial respirator, the person is officially dead. Many persons today would prefer a higher brain-oriented definition of death like that suggested by Robert Veatch (1993:23), “an irreversible cessation of the capacity for consciousness.” One effect of this definition would be that patients in a persistent (or “permanent”) vegetative state would be declared to be dead.

in the Quinlan case—not about nutrition and hydration. Karen was moved to a chronic care institution, where she continued breathing for ten years before expiring.

**Nancy Cruzan.** Does this right to privacy extend to the refusal to accept artificial means of nourishment? (This is typically done through a nasogastric tube that delivers fluids through the nose and esophagus, or a gastrostomy in which fluids are delivered by tube through a surgical incision directly into the stomach, or intravenous feeding and hydration in which fluids are delivered through a needle directly into the bloodstream.) Or, is the provision of nutrition and hydration so basic that it is not considered to be “medical treatment”?

In a poignant and lengthy travail through the court system, the case of **Nancy Cruzan** provided a judicial answer to the question. In January 1983, Nancy was in an automobile accident and suffered irreversible brain damage. She

entered a PVS. After four years, Nancy’s parents asked the Missouri Rehabilitation Center to withdraw the feeding tube. The center refused; the Cruzans filed suit. They informed the court that Nancy had indicated that she would not want to be kept alive unless she could live “halfway normally.” The Circuit Court ruled in favor of the Cruzans, but under appeal, the Missouri Supreme Court overruled—disallowing the feeding tube from being disconnected. The court concluded that there was not “clear and convincing evidence” that Nancy would not have wanted to be maintained as she was. Missouri law required such evidence for the withdrawal of artificial life-support systems.

The Cruzans appealed to the U.S. Supreme Court, and, for the first time, the Court agreed to hear a “right to die” case. On June 25, 1990, the Court handed down a 5–4 decision in favor of the state of Missouri. States were given latitude to require “clear and convincing evidence” that the individual would not wish to be sustained in



## IN THE FIELD

### ADVANCE DIRECTIVES

A **living will** is a document signed by a competent person that provides explicit instructions about desired end-of-life treatment if the person is unconscious or unable to express his or her wishes. Legal in all 50 states and the District of Columbia, the living will is commonly used to authorize the withholding or withdrawal of life-sustaining technology and provides immunity to health care professionals who comply with the stated wishes. Approximately 30 percent of adult Americans have completed a living will. Ironically, in most situations, physicians and hospitals ignore the living will if family members request medical treatment.

A *health care power of attorney* can be signed by a competent person to designate someone who will make all health care

decisions should the person become legally incompetent. It requires the person to be available in the needed situation but allows the person to consider the particulars of the situation before making a decision. Most experts agree that both types of advance directives have some benefit and encourage people to do both.

The *Patient Self-Determination Act* (sometimes called the “medical Miranda warning”) went into effect on December 1, 1991. It requires all health care providers who receive federal funding to inform incoming patients of their rights under state laws to refuse medical treatment and to prepare an advance directive. The law is intended to ensure that people are aware of their rights vis-à-vis life-sustaining medical technology.

PVS—meaning that families could not use their own judgment to decide to discontinue feeding.

However, the Court did acknowledge a constitutional basis for **advance directives** (see the accompanying box “Advance Directives”) and the legitimacy of surrogate decision making. Its rationale cited the Fourteenth Amendment’s “liberty interest” as enabling individuals to reject unwanted medical treatment. Because the decision did not distinguish between the provision of nutrition and other forms of medical treatment, the feeding tubes could have been removed had the qualifications of the Missouri law been met.

Ultimately, another hearing occurred in the Circuit Court; friends of Nancy came forward to offer additional evidence that Nancy would not have wanted to be maintained in a PVS; and the judge again ruled for the Cruzans. No appeal was filed, and the feeding tubes were removed on December 14, 1990. Nancy died 12 days later.

**Terri Schiavo.** In 2004 and 2005, the nation’s attention was riveted on a Florida case that once again raised issues regarding persistent

vegetative states, the role of proxy decision makers, and the power of the media and politicians to dramatize complex medical issues. On February 25, 1990, 26-year-old **Terri Schiavo** suffered a cardiac arrest that was, at least in part, brought on by an eating disorder. The disruption of oxygen caused permanent brain damage. Like Nancy Cruzan (and ultimately, Karen Ann Quinlan), Terri entered a PVS and was kept alive by artificial nutrition and hydration.

For several years, her case was not unlike that of thousands of other PVS patients as both her husband, Michael, and her birth family did all they could to provide support. In 1994, the relationship between Michael and her parents and siblings broke down over the manner in which a medical malpractice judgment would be spent. Four years later, in 1998, having become resigned to the fact that Terri’s brain damage was permanent, Michael asked that the feeding tubes be withdrawn. Like Nancy Cruzan, Terri did not have any form of advance directive, and Michael was the legal guardian and proxy.

Her family opposed this decision and filed a series of court cases over the next several years

to remove Michael as guardian. All found that Michael was acting within his legal rights. In the early 2000s, the media picked up on the case, and details of the situation were reported on a routine basis. Governor Jeb Bush, the Florida state legislature, and eventually, President Bush and the Republican leadership in Congress became involved in the case and sought all available means to overturn the several court rulings in the case and to prevent the withdrawal of the feeding tube. Twice, the feeding tube was withdrawn and then reinserted. Congressional Republicans passed a bill that pertained just to Terri, but federal judges immediately found it to be unconstitutional. Ultimately, every court involved in the case ruled in favor of Michael's right to decide. The feeding tube was once again removed, and Terri died (Hampson and Emanuel, 2005; Werth, 2006). Political involvement and partisan wrangling in the case was at such a high level, according to the results of one study conducted in the aftermath of *Schiavo*, that college students began seeing this issue more from a political than ethical viewpoint (Weiss and Lupkin, 2009–2010).

### Can Patients Demand a Particular Medical Treatment?

The cases of Karen Ann Quinlan, Nancy Cruzan, and Terri Schiavo illustrate circumstances in which a patient or her or his proxy wishes to refuse medical treatment. In 1991, an unusual twist occurred in the Helga Wanglie case: The hospital wished to stop medical treatment, and the family demanded that it continue. This created the reverse of the usual question: Does a patient or her or his representatives have the right to demand medical treatment?

#### Helga Wanglie

In December 1989, **Helga Wanglie**, an active, well-educated 85-year-old woman, tripped over a rug and broke her hip. During the next several months, she experienced several cardiopulmonary arrests. In May 1990, she suffered severe anoxia and slipped into a PVS. Her breathing

was reinforced by a respirator, and she was fed through a feeding tube. By year's end, her medical bills approached \$500,000.

In December, the medical staff recommended to Oliver Wanglie, her husband of 53 years, that the ventilator be disconnected. He refused on the grounds that he and his wife believed in the sanctity of life and that, in good conscience, he could never agree to have the ventilator disconnected.

The hospital petitioned the court to have Mr. Wanglie replaced as Helga's legal guardian. The rationale was that Mr. Wanglie had made some statements that indicated that Helga had never voiced an opinion about being sustained in PVS and that he was not legally competent to serve as guardian. The hospital justified its request to disconnect by stating that it did not feel it should be obligated to provide "medically futile" medical treatment.

On July 1, 1991, the judge issued a narrow ruling that the hospital had not demonstrated that Mr. Wanglie was incompetent, and therefore he was the most appropriate legal guardian. Without the tubes being removed, Helga died three days later.

**Medical Futility.** Although the judge did not address the "medical futility" issue, the concept caught the attention of social scientists, medical ethicists, health care practitioners, and the lay public, and significant attention has now been given to it. It has proven to be an elusive concept to define. Schneiderman, Jecker, and Jonsen have defined **medical futility** as "an expectation of success that is either predictably or empirically so unlikely that its exact probability is often incalculable" (1990:950). In a quantitative sense, "when physicians conclude ... that in the last 100 cases, a medical treatment has been useless, they should regard the treatment as futile" (p. 951). In a qualitative sense, "any treatment that merely preserves permanent unconsciousness or that fails to end total dependence on intensive medical care should be regarded as nonbeneficial and, therefore, futile" (p. 952). If a treatment fails to appreciably improve the person as a whole, they argue,

physicians are entitled to withhold the treatment without the consent of family or friends.

While courts have supported patients' "negative rights" to refuse medical treatment, the issue of a "positive right" (the request for a particular intervention) is far different. It raises two issues: (1) a resource allocation issue (the more dollars spent on nonbeneficial treatment, the fewer dollars available to spend on those who would benefit), and (2) the reasonableness of requiring health care practitioners to engage in actions they consider to be unwarranted (and possibly harmful). Some believe that unless some benefit is anticipated, specific measures cannot be demanded.

However, successful intervention may be defined differently by different people. Families may be satisfied as long as everything possible is done—even if the patient dies. Their values may rest more on effort than outcome, and they may never define effort as being futile. Some view the issue as showing respect for the autonomy of patients and their families by honoring these value differences but working together to avoid futile treatments (Quill, Arnold, and Back, 2009).

### Physician-Assisted Suicide

**Physician-assisted suicide** occurs when a physician provides a means of death (e.g., a particular drug) and instructions (e.g., how much of the drug would need to be taken for it to be lethal) to a patient but does not actually administer the cause of death. This is different than active euthanasia—a situation in which the physician directly administers the causes of death.

Physician-assisted suicide is legal in some countries in the world (e.g., the Netherlands and Belgium) but not in most. It has become a very controversial issue in the United States where four states—Oregon, Washington, Vermont, and Montana—have legalized the practice. In 1997, the U.S. Supreme Court ruled unanimously that terminally ill persons do not have a constitutional right to physician-assisted suicide, but that states could enact legislation consistent with their own constitution that permits it.

Thus far, only the four states have legalized physician-assisted suicide while 39 states have laws prohibiting it. Between 1998 and 2012, 596 individuals in Oregon selected physician-assisted suicide, and 115 did so in Washington in its first three years of legalization. People who engaged in physician-assisted suicide were overwhelmingly white and highly educated, and most had cancer. They mostly feared losing their autonomy, losing the ability to participate in enjoyable activities, and the loss of dignity (O'Reilly, 2010). The box, "Advance Directives and Navajo Culture," describes how this concept is considered in a Native American culture.

Two situations originally drew considerable attention to the issue of physician-assisted suicide in the United States.

**Dr. Timothy Quill.** In 1991 Dr. Timothy Quill, a 41-year-old general internist in Rochester, New York, published an article in the *New England Journal of Medicine* (1991) in which he described how he assisted "Diane," a 45-year-old woman with leukemia, who had been his patient for eight years, to end her life. Diane had rejected the option of chemotherapy and bone marrow transplantation, which had a one-in-four chance of success, due to the certain negative side effects. After they had a thorough discussion and he was convinced of her full mental competence, Quill prescribed barbiturates and made sure Diane knew how much to take for sleep and how much to take to end her life. They continued to meet regularly, and she promised to meet with him before taking her life—which she ultimately did. While reaction was mixed, Dr. Quill received considerable praise for his action with Diane and his courage in describing the events in print.

**Dr. Jack Kevorkian.** By far, the key figure in this debate has been **Dr. Jack Kevorkian**, a retired Michigan pathologist who assisted more than 100 people to end their lives by providing a painless means to do so and by being present at the time of death. Each of the persons contacted Kevorkian (none were patients of his) and convinced him that they had



Dr. Jack Kevorkian, a retired Michigan pathologist, repeatedly and successfully challenged prohibitions against physician-assisted suicide. Eventually, he was convicted of second-degree homicide for directly causing the death of an individual who was in the late stages of amyotrophic lateral sclerosis ALS and had requested Kevorkian's help in his death.

made a rational choice to die. The particular means used varied from case to case. Although two juries refused to convict Kevorkian of a crime, ultimately, he engaged in an act of active euthanasia in which he did cause the death to occur. A Michigan jury convicted him in 1999 on this charge and sentenced him to 10 to 25 years in prison. He was released in 2007 after 8 years with a promise that he would no longer assist in suicides, but that he could continue to advocate for physician-assisted suicide. He died in 2011.

**Arguments Favoring Physician-Assisted Suicide.** Proponents of the legalization of physician-assisted suicide offer the following rationale:

1. It is perfectly appropriate to have physicians and other health care professionals create a comfortable and peaceful environment in which death occurs.
2. People have a right to self-determination; if one has reflected on life circumstances and made a rational, competent decision to die, the assistance of physicians in the act is appropriate. People should not be required to undergo mental and physical decline, endure emotional and physical pain, and incur sizable medical expenses for treatment not desired.
3. In order to prevent abuse, laws could require certain safeguards (e.g., there is intolerable suffering; the patient is mentally competent; a written, witnessed request is provided; the patient consistently and repeatedly over time requests death; and two physicians—one of whom has not participated in the patient's care—agree that death is appropriate).
4. An extremely high rate of suicide already exists. In addition to that which occurs without medical contact, it is clear that many deaths in hospitals occur with some "assistance." An estimated 70 percent of the 1.3 million deaths that occur in American hospitals each year involve some agreement not to take aggressive action to sustain the patient.
5. Public opinion polls show a majority of Americans favor the legalization of physician-assisted suicide and that in certain circumstances as many as half would consider it for themselves. Derek Humphry (1991), president of the Hemlock Society, a national organization in favor of legalized euthanasia, wrote *Final Exit: The Practicalities of Self-Deliverance and Assisted Suicide for the Dying*. It is a how-to-commit suicide guidebook, and it became an overwhelming best seller.

**Arguments Opposing Physician-Assisted Suicide.** Opponents of physician-assisted suicide offer the following rationale:

1. Traditionally, we have considered the physician's responsibility to be to sustain life and relieve suffering. While actions taken by physicians may sometimes have the opposite effects, their intention is to do good. The primary purpose of physician-assisted suicide, however, is to cause death. The American Medical Association, the American Bar Association, and some medical ethicists believe this to be inconsistent with the physician's professional obligations.
2. Patients considering physician-assisted suicide may be sufficiently ill or so worried that they are not capable of genuine contemplative thought or the exercise of a true informed consent. The depression that might lead to consideration of this act might itself be treatable.
3. The legal possibility of physician-assisted suicide may interfere with a good physician–patient relationship. A physician's willingness to participate may be interpreted by the patient that society (and the physician) would prefer that suicide occur. This interpretation may place implicit pressure on the patient to request the act. Elderly and dying patients may be especially vulnerable psychologically. On a broader scale, a climate may be created in the country in which terminally ill people are expected to end their lives.
4. There could be a slippery-slope argument—by legalizing physician-assisted suicide for patients with terminal illnesses, we increase the likelihood that suicide will become acceptable for other people—the mentally retarded, those with physical disabilities, and the very old, for example.
5. Significant progress has been made in dealing with the pain that often accompanies late-stage diseases. An increasing number of hospitals have developed palliative care programs to manage and control patients' pain, and an increasing number of health

care providers are receiving training in palliative care (although there are still far too few programs and trained providers). Hospices are increasingly successful in reducing the amount of pain their clients experience.

Reaction to the two cases mentioned earlier in the general population and among clinicians was divided. The primary point of distinction in the cases is that Dr. Quill assisted in the suicide of a patient that he had known for many years and with whom he had long and engaging discussions about life and death. In that context, he agreed to participate. On the other hand, while Dr. Kevorkian spoke at some length with all his suicides, he did not have long-standing physician–patient interaction with any of them. Many physicians, medical ethicists, and laypersons believe the lack of a personal relationship with the patients is the most troubling aspect of Kevorkian's behavior, although many others believe that he had adequate assurance of the competent desires of each person. He has been both widely praised and widely condemned.

## ORGAN DONATION AND TRANSPLANTATION

The ability to successfully transplant organs from a cadaver or living, related donor began with a successful transplant in Boston in 1954 when a 23-year-old man received a kidney from his genetically identical twin brother. The recipient recovered completely and lived another eight years before dying of an unrelated cause. Bone marrow was first successfully transplanted in 1963 (Paris), the same year as the first liver transplant (Denver), the first pancreas was transplanted in 1966 (Minneapolis), the first heart in 1967 (Capetown, South Africa), the first heart–lung in 1981 (Palo Alto, California), the first partial pancreas in 1998 (Minneapolis), the first hand in 1998 (Paris), the first partial face in 2005 (Paris), and the first windpipe in 2008 (Barcelona).



## IN COMPARATIVE FOCUS

### ADVANCE DIRECTIVES AND NAVAJO CULTURE

Discussion of ethical issues outside the context of particular cultures means that vital information is not considered. On a broad level in the medical context, it increases the likelihood of social policies that conflict with important values of particular groups. On an individual level, it creates potential for misunderstandings and frustration between health care providers and their patients and may lead to suboptimal care.

This is the case with regard to discussions about advance directives with Navajo patients. An important Navajo cultural norm is avoidance of discussion of negative information. In the Navajo belief system, talking about an event increases the likelihood of the event occurring. This belief obviously comes into conflict with several norms in medical settings: discussing risks as well as benefits of intended procedures, telling patients the truth about a negative diagnosis or prognosis, and preparing an advance directive. Ignoring the cultural values

of a Navajo patient almost inevitably means that care and treatment will be interrupted and perhaps discontinued.

On the other hand, acting with cultural sensitivity can enable the values of the patient to be respected while medical responsibilities are discharged. Health care providers who work with the Navajo have been encouraged to pursue situations of this type in four ways: (1) determining if the patient is or is not willing to discuss negative information; (2) preparing the patient by building rapport and trust, involving the family, giving an advance warning that bad news is coming, and involving traditional Navajo healers in the encounter; (3) communicating in a kind, caring manner that is respectful of traditional beliefs, for example, referring to the patient in third-party language rather than directly; and (4) following through in a manner that fosters reasonable hope (Carrese and Rhodes, 2000).

### Social Policy Issues Related to Organ Transplantation

The success of these sophisticated medical technologies has prolonged the life of many recipients but has also created several complex ethical and social policy issues. Nancy Kutner (1987) and Renee Fox and Judith Swazey (1992) have identified key issues as follows:

1. Do the medical and quality-of-life outcomes for organ recipients (and donors) justify organ transplantation procedures? The question, to be asked before all questions, is whether organ transplants have been shown to have sufficient therapeutic value that they should be continued. If the answer to the first question is affirmative, then at least the four following additional questions need to be addressed.
2. Given that the demand for transplant organs exceeds the supply, how should recipients be selected? Should a complex formula be devised to prioritize potential recipients, or would a first-come–first-served (or random) policy be more consistent with democratic principles?
3. How can the supply of organs be increased? Organ donation policy has evolved during the last four decades, but demand continues to exceed supply. What policy might increase motivation to donate while maintaining a voluntary nature?
4. How much money should be allocated to organ transplant procedures? Given the finite amount of money available to be spent on health care, how much should be directed to these very expensive procedures (most cost between \$100,000 and \$200,000) that benefit a relatively small number of people versus less dramatic, less costly procedures that might benefit a much larger number?
5. Who should pay for organ transplant procedures? Should (can?) the government be willing to pick up the tab because these

procedures are so expensive? Should health insurance companies guarantee coverage? Today, the federal government's Medicare program pays for kidney, heart, and some liver transplants; some health insurance policies cover transplants; people not covered in these ways are on their own, and those unable to pay are turned away.

This section focuses on the evolution of organ donation policy in the United States, assesses the current and alternative donation policies, and discusses the psychosocial dimension of organ donation.

### Organ Donation Policy in the United States

The success of the early transplant efforts in the 1950s and 1960s forced the United States to establish a formal organ donation policy. The initial policy was one of **pure voluntarism**—donation was made legal, and it was hoped that volunteers would come forward. Courts ruled that competent adults could voluntarily donate organs to relatives, which at first seemed like the only possibility. Organs could be donated by minors only with parental and judicial consent.

Donations did increase, but as the supply was increasing, so was the demand. The success rate for transplants improved with the development of the artificial respirator and the heart–lung machine and with the discovery of effective immunosuppressive drugs to suppress the body's immune system, thereby making the recipient's body less likely to reject a transplanted organ.

In 1968, the United States adopted “brain death” as the legal standard for death determination; this definition enabled organs to be taken from those who had suffered irreversible loss of brain function (and therefore were legally dead) but were being sustained on artificial respirators. Death could be pronounced, the organs taken, and then the respirator disconnected.

These changes forced the United States to develop a more assertive organ donation policy: **encouraged voluntarism**. This occurred in 1968 with the passage of the Uniform

Anatomical Gift Act (UAGA), which was adopted in every state and Washington, DC by 1971. The UAGA permitted adults to donate all or part of their body after death through donor cards and living wills and gave next of kin authority to donate after an individual's death, as long as no contrary instructions had been given. The UAGA was praised for maintaining the country's allegiance to a voluntary approach and was successful in increasing the number of donors. However, about 90 percent of the 20,000 to 25,000 people who were potential donors each year in the United States still failed to donate; there was no centralized system for identifying those needing and those willing to make a donation; and hospitals had little involvement in the program.

A dramatic change in organ donation policy occurred in 1987 with the establishment of a **weak required request policy**. In order to receive essential Medicare and Medicaid reimbursements, each of the nation's more than 5,000 hospitals must make patients and families aware of the organ donation option and must notify a federally certified organ procurement organization (OPO) when there is consent to donation.

Also, a national central registry (now called the *United Network for Organ Sharing—UNOS*) was created in Richmond, Virginia, to maintain a national list of potential donors and recipients. In order to receive Medicare and Medicaid funding, all the country's more than 260 transplant centers and 58 procurement organizations are required to affiliate with UNOS. When an organ for transplant becomes available, UNOS engages in a matching process considering medical need, medical compatibility (size and blood type), and geographic proximity. Much of the physical work is performed by the OPOs: They encourage donation, contact UNOS when an organ becomes available, send teams to collect and process the organ, and deliver it to its designee.

The weak required request policy maintains the voluntary and altruistic nature of organ donation but seeks to ensure that potential donors are aware of the donation option. The

request is sometimes handled very sensitively but sometimes with little enthusiasm and little tactfulness.

Studies indicate that few physicians and nurses have received any education or training in how to make a request for organ donation, and many feel uncomfortable doing so. Many physicians have been unwilling to be the one who asks, citing such reasons as uncertainty about their own attitudes regarding organ donation, lack of knowledge about organ donation criteria and processes, reluctance to bother a family during a time of grief, not knowing how to make the request, and lack of time and reimbursement for the donation request (May, Aulisio, and DeVita, 2000).

Yet studies indicate that more than 90 percent of health care professionals approve of organ donation, and many are willing to donate their own organs. A study of more than 700 physicians in a variety of specialties suggested that organ donation information programs for physicians would alleviate some of their concerns and make them more willing to make the request (McGough and Chopek, 1990).

These attitudes are extremely important because the comfort level of the requestor has been shown to have a significant impact on the likelihood of donation. When families are approached with lines such as, “I don’t suppose you want to donate, do you?” or “The law says I have to ask if you want to donate,” a refusal is very likely.

Has the 1987 legislation succeeded? The level of criticism directed at UNOS has been minimal; it seems to be well run. (See the accompanying box, “Challenging UNOS.”) The number of organ donations did increase after the policy was implemented—but only to a 25 to 30 percent consent level. (It has now increased to 41 percent.) In 2012, more than 28,000 organ transplants (including the heart, liver, kidney, heart–lung, lung, and partial pancreas) occurred—the most ever. Moreover, organ transplants are more likely to be successful than ever before, and recipients are living longer. Yet, more than half of the families that are asked to consider donation after a relative has died do not give their consent.

There are now more than 120,000 people on the waiting lists in Richmond who have been medically and financially approved for transplants. It is likely that two-thirds of these individuals will eventually receive a transplant, but one-third will die before receiving a transplant. The American Council on Transplantation estimates that an additional 100,000 people would benefit from some type of organ transplant but are not on the list because they are unable to demonstrate the means to pay for a transplant. Ironically, research shows that people without health insurance often donate organs but rarely receive them (Herring, Woolhandler, and Himmelstein, 2008).

### Alternative Directions for Organ Donation Policy

There is some support in the United States for adopting a different or enhanced policy regarding organ donation. A recent study of transplant surgeons, coordinators, and nurses found that the current policy of altruistic donation was rated as being the most morally appropriate policy, but that several alternative, more aggressive policies were also considered to be morally appropriate (Jasper et al., 2004). Should the United States again choose to revise its organ donation policy, five main alternatives exist:

1. **Strong required request.** Every citizen would be asked to indicate her or his willingness to participate in organ donation—either on income tax returns or through a mandatory check-off on the driver’s license. This policy retains the voluntary/altruistic nature of the system but is more aggressive in forcing people to consider organ donation and to take a formal position. Some states already do this, and many have more than a 50 percent donor rate (Alaska and Montana are highest at 76 percent followed by Utah and Washington at 72 percent). Most states do not, and several have less than a 30 percent donor rate (Texas is the lowest at 7 percent followed by New York at 15 percent and South Carolina at 16 percent).



## IN THE FIELD

### CHALLENGING UNOS

While UNOS has generally been praised for its commitment to a fair allocation system, there are occasions when the anguish of a particular individual on the waiting list creates a challenge for the organization's protocols. Such was the situation in 2013 with the simultaneous cases of 10-year-old Sarah Murnaghan of Newtown Square, Pennsylvania and 11-year-old Javier Acosta of New York City. Both children had end-stage cystic fibrosis, were terminally ill, and required a lung transplant to extend their lives. More than 80 percent of cystic fibrosis patients who receive a lung transplant survive at least a year, and 50 percent survive at least five years.

However, UNOS policy requires that patients under age 12 receive a lung only from another adolescent. The policy was developed because lungs from an adult, which become available much more often, would be too large for a child-size body. As Sarah's prognosis grew worse, her parents made public pleas for reconsideration of the policy. Politicians got involved and requested that the Secretary of Health and Human Services, Kathleen Sebelius (whose cabinet department oversees

UNOS) mandate a lung transplant for Sarah. She declined with the reasoning that the protocols were set up in the fairest way possible and were time-tested. A lawsuit was filed, and the judge ruled the next day that Sarah should be moved to the front of the queue until a formal court hearing could occur a few days later.

This prompted a special review board at UNOS to consider the case. They recommended no change in the policy saying it would be wrong to hastily make a change based on one or two cases and that any policy that grants an organ to one person necessarily deprives another from receiving the organ. However, they did advise that a special appeals process be created for situations like Sarah's. Before that hearing could occur, an adult lung became available, Sarah was first on the list, and she received a double-lung transplant. Almost immediately, Sarah had difficulties, and doctors had a difficult time weaning her from the respirator. Several days later, the double-lungs were removed, but a new double-lung set was transplanted. Javier Acosta had also been added to the adult list and was waiting to be selected for a transplant.

2. **Weak presumed consent.** Hospitals would be required by law to remove and use all suitable cadaver organs for donation unless the deceased had expressly objected, through a central registry, a nondonor card, or if family members objected. Sometimes called "routine salvaging of organs," this remains a voluntary/altruistic system but with a very significant change—the presumption or default position is that donation will occur. In presumed consent, the person must take an action to prevent donation. Several European countries have this policy.
3. **Strong presumed consent.** Physicians would be given complete authorization to remove usable organs regardless of the wishes of the deceased or family members.

Also referred to as "expropriation," it is the only alternative that eliminates the voluntary dimension of organ donation policy, but it is also the policy that retrieves the largest number of transplantable organs. This policy also is in effect in several European countries.

4. **Weak market approach.** Individuals or next of kin for deceased donors would receive a tax benefit for the donation of organs (perhaps a one-year deduction from federal and state taxes) or a cash payment of sufficient size to offset some funeral expenses. This approach adds financial incentive to a volunteer-based system, thus reducing the role of altruism. Proponents argue that offering financial benefit is fair and sensitive, but opponents prefer altruistic motivation. They worry that

some likely donors would be so offended by the suggestion of payment that they would choose not to donate. Pennsylvania became the first state to incorporate this technique in 2000, when it began offering \$300 to help families of organ donors cover their funeral expenses.

**5. Strong market approach.** Individuals or next of kin would be able to auction organs to the highest bidder. Like the weak market approach, this system places greater emphasis on increasing the number of organs donated than on retaining altruistic motivation for donation. Critics of the strong market approach worry that the financial incentive may place undue pressure on low-income persons and people in the Third World to donate. Once organs are on the market, the wealthy clearly would have easier access. The buying and selling of organs is unlawful in the United States at this time but is an option in some European countries. A former company in Germany routinely sent a form letter to all persons listed in the newspaper as having declared bankruptcy. The individual was offered \$45,000 (plus expenses) for a kidney (which was then sold for \$85,000). In 1995, India, the country in which the most people have sold organs to strangers, banned the practice and now restricts living donor-related transplants to relatives.

### The Psychosocial Dimension of Organ Transplantation and Donation

Some of the most insightful work done in medical sociology and medical anthropology has pertained to attitudes, motivations, and consequent feelings related to organ donation. Anthropologist Lesley Sharp (2006) has recently written about not only the illuminated side of organ transplantation—the medical successes and altruistic motivations—but also the less studied complicated relationships and social injustices related to the gap between supply and demand. Renee Fox and Judith Swazey (1978, 1992), leaders for many years in this field of study in medical sociology, have written

forcefully that the organ donation decision needs to be placed within a social-structural context. Based on years of systematic observation in transplantation settings and countless interviews with physicians, patients, donors, and families, they have raised three important concerns with donation and transplantation:

1. There is still too much “uncertainty” about the therapeutic value of organ transplantation. While significant progress has been made, there are still concerns. For example, there is still a high incidence of long-term (five or ten years posttransplant) or chronic rejection of transplanted organs; many organ recipients are prone to redeveloping the same life-threatening medical conditions that led to the transplant; and there have been repeated failures with certain transplant modalities (e.g., animal to human transplants and the totally implantable artificial heart). Fox and Swazey argue that these types of questions have not been given adequate and genuine reflection.
2. There has been too little consideration of the psychosocial dimensions of organ donation and receipt. The focus of attention has become so fixed on the “organ shortage problem” and the “allocation of scarce resources” that the human dimensions of the process have seemed inconsequential. The concept of the “gift-exchange” relationship between donor and recipient has given way to discussions of “supply and demand” and compensation for donors. Fox and Swazey contend that this way of thinking commodifies body parts and reconceptualizes the “gift of life” idea.
3. The high price of transplant procedures and the fact that more people seek an organ than have been willing to donate one have created real, and not yet fully answered, questions of distributive justice and public good.

### The Donor–Recipient Relationship

Although research has shown that the decision to donate a kidney to a relative is typically made

very quickly and with little regret, the decision to donate and the decision to receive an organ is governed by often unspoken but powerful social norms. Family members may express an “intense desire” to make a potentially lifesaving gift to someone close, and they sometimes feel that donating is part of a family obligation (even sensing some family pressures). With this “gift of life,” an incredible bond can be established between the giver and the receiver. In addition, some cases of “black sheep donors” have surfaced, in which individuals who felt remorse for previous wrongs against the family wished to make amends through donation of an organ (Fox, 1989). For those who donate to strangers, there is often enhancement of self-image—a feeling of having actualized traits of helpfulness and generosity to others and having demonstrated their own altruistic nature.

Just as prevailing norms may motivate organ donation, they also motivate accepting it. Rejection of an offer to donate constitutes a form of rejection of the donor. When the donation and transplant occur, a type of “obligation to repay” is incurred by the recipient. Having received something so profoundly important, the recipient becomes, in a sense, a debtor—owing something back to the donor (Shaw, 2010). Fox and Swazey (1978) referred to this as the **tyranny of the gift**.

Similar considerations occur in family members’ decisions to offer cadaver organs. These decisions are almost always made in traumatic situations, such as automobile accidents, in which the death is sudden and there is no preparation for it. Family members often consent to donation as a way of bringing meaning or some sense of value into a senseless tragedy. The altruistic and humanitarian aspects of organ donation become powerful motivating forces (Fox and Swazey, 1978).

Fox and Swazey’s *Spare Parts: Organ Replacement in American Society* (1992) is a powerful critique of organ donation and organ transplantation in American society. They indict society for the extent to which it has become obsessed with rebuilding people and sustaining life at all costs and for doing so while failing

to fully consider quality of life considerations and the psychosocial aspects of donation and transplantation. The final chapter of their book describes their decision to leave this entire field of inquiry.

By our leave-taking we are intentionally separating ourselves from what we believe has become an overly zealous medical and societal commitment to the endless perpetuation of life and to repairing and rebuilding people through organ replacement—and from the human suffering and the social, cultural, and spiritual harm we believe such unexamined excess can, and already has, brought in its wake. (1992:210)

## ASSISTED PROCREATION

### Infertility

The reported incidence of **infertility**, defined as the absence of pregnancy after one year of regular sexual intercourse without contraception, is increasing in the United States. An estimated 10 to 15 percent of American couples of childbearing age are defined as being infertile. However, this percentage may give an exaggerated picture; up to half of the couples not pregnant after one year get pregnant on their own in the second year. The increased incidence of infertility is due to several factors: an actual increase in infertility (likely due to increased exposure to radiation and pollution, ingesting of certain drugs, and higher levels of sexually transmitted infections); the number of older women now trying to get pregnant (peak fertility occurs between 20 and 29); and more couples seeking assistance with lack of fertility.

The specific reason for a couple’s infertility is traceable to the female partner in approximately 40 percent of the cases. The most common specific causes are inability to produce eggs for fertilization, blocked fallopian tubes (so that the eggs cannot travel to meet the sperm), and a sufficiently high level of acidity in the vagina that kills deposited sperm. In another 40 percent of infertility cases, the specific cause is traceable to the male partner—typically, low sperm count and/or low sperm motility. The specific

cause of the remaining 20 percent of infertility cases is either undeterminable or traceable to both partners.

### The Development of Assisted Procreative Techniques

In order to enable infertile couples to produce children biologically related to at least one of the partners, several assisted procreative techniques have been developed. These techniques have in common that at least one of the four traditionally essential steps of procreation—sexual intercourse, tubal fertilization, utero implantation, and utero gestation—is eliminated. About 1.5 million assisted procreative techniques are attempted worldwide each year resulting in the birth of 350,000 babies. As of 2012, approximately 5 million births had occurred altogether using assisted procreation. This section briefly discusses four techniques—intrauterine insemination, in vitro fertilization, ovum donation (surrogate embryo transfer), and surrogate motherhood. Most of the section focuses on surrogate motherhood—the most controversial of the four techniques.



Fertility centers—also called “infertility and reproduction centers”—assist individuals and couples in producing offspring through a wide variety of techniques.

**Intrauterine Insemination.** Technologically, the least complicated technique is **intrauterine insemination (IUI)**. During the time of the month when the woman is ovulating, she receives three inseminations of sperm through a catheter inserted into the uterus. The sperm may have been provided by her husband or consort, an anonymous donor, or a mixture of the two. An overall success rate is reported as 85 percent (about 10–20 percent for each attempt), although success on the first attempt is rare.

Intrauterine insemination is typically used (1) when the male cannot produce a sufficient number of healthy sperm to fertilize an egg (it takes only one, but the higher the concentration of sperm, the more likely is fertilization); (2) when the female’s vaginal environment is biochemically inhospitable to sperm or the position of the uterus is such or the size of the opening to the uterus is sufficiently small that fertilization is unlikely; (3) if both partners are carriers of a recessive gene for a genetic disorder (e.g., Tay-Sachs) or the male is a carrier of a dominant gene (e.g., Huntington’s Chorea); or (4) increasingly, for single women.

Precise records are not kept, but approximately 100,000 births per year in the United States occur to women who have been inseminated. The cost of an insemination ranges from \$300 to \$900, but there are additional costs for initial evaluation and fertility tests. As many as three or four or more cycles may be necessary (if it is going to work, it typically does so by the fourth cycle). All states deal with paternity by statute; in most states, insemination by donor sperm for married couples is legal with the husband’s consent, and the offspring is considered his legal responsibility.

**In Vitro Fertilization (Embryo Transfer).** When infertility is due to the female’s blocked fallopian tubes or low motility or low count of the male’s sperm, **in vitro fertilization (IVF)** may be used. In this process, the woman is given a reproductive hormone to stimulate her ovaries to produce multiple eggs. A few hours before ovulation is expected, a small incision is made in the abdomen. A laparoscope (an

instrument with a lens and a light source) is inserted to examine the ovaries. Mature eggs are located and removed by a vacuum aspirator and transferred to a petri dish (the so-called test tube) with the male's sperm and a nutrient solution where fertilization occurs about 80 to 90 percent of the time. About two days later, at an appropriate time of cell development, the fertilized egg is introduced through the vagina into the uterus. If the cell continues to divide naturally, it will attach itself to the uterine wall.

For women less than 35, about one attempt in two now results in a pregnancy, but some women try several times before achieving pregnancy. Each attempt may cost from \$8,000 to \$15,000. To increase the likelihood of a pregnancy, many fertility clinics implant multiple eggs. However, this has led to a sharp increase in multiple births—30 percent of fertility treatments (including IVF) now result in multiple births. The concern is that multiple births increase the incidence of life-threatening prematurity, low birth weight, and birth defects. More than 60,000 IVF babies are born in the United States each year.

Among the modifications of IVF is GIFT (gamete intrafallopian transfer) whereby eggs are retrieved from the woman's ovary and implanted with a sample of the male's sperm in her fallopian tube where fertilization may occur. This technique may be helpful for couples who have not had success with IVF, but unlike IVF, it involves a surgical procedure.

**Ovum Donation (Embryo Transfer).** Some female infertility is traceable to the absence of ovaries or to nonfunctional ovaries. Since eggs are not produced, there can be no genetic offspring. If the uterus is functional, however, there is no biological obstacle to gestating a fetus and giving birth. If the couple wishes to have the offspring genetically related to the male, **ovum donation** can be used. This procedure can occur in any one of three ways: (1) transfer of a donor's egg to the woman's fallopian tube followed by sexual intercourse, (2) in vitro fertilization of a donor's egg with the male's sperm followed by insertion in the

woman, and (3) artificial insemination of an egg donor with the male's sperm producing fertilization and then washing the embryo out of the donor and transferring it to the woman's uterus.

Embryo transfer is the most recently developed technique (early 1980s), the most expensive (approximately \$25,000 per attempt), and the least commonly used, but it has a higher rate of success than IVF. Approximately 14,000 births each year in the United States occur with donated eggs. In most cases, the woman donating the egg(s) receives reimbursement for expenses and some compensation. The average payment is about \$5,000, but some couples desiring donor eggs from a woman with a particular background offer several times that amount.

**Surrogate Motherhood.** While all the assisted procreative techniques carry some controversy, **surrogate motherhood** has been the most controversial. In this process, a woman who is not capable or not desirous of carrying a pregnancy and her male partner contracts with another woman (the surrogate) to carry the pregnancy, the surrogate is artificially inseminated with the male's sperm. If fertilization occurs, the surrogate gestates the fetus, bringing it to term, and then gives it to the couple. The woman receiving the baby must adopt it.

The process usually occurs with the assistance of a lawyer/broker who develops an extensive contract. Early in its history, a payment of \$10,000 to the surrogate was typical (today the typical payment is \$15,000 to \$30,000, but the total cost may be two or three times that). Many experts distinguish between surrogate motherhood which is "commercialized" (done for payment) and that which is "altruistic" (most commonly done for a sister, other relative, or close friend). Between 1980 and 1990, about 2,000 births occurred in the United States using the surrogate motherhood process, but legal restraints have sharply reduced the number to a few hundred per year since then.

Considerable public attention was brought to the surrogate motherhood technique in the mid-to late 1980s in the *Baby M* case. A New Jersey

couple (the Sterns) contracted through a broker with another New Jersey woman (Mary Beth Whitehead) to be a surrogate. Whitehead had registered to be a surrogate with the Infertility Center of New York, saying that she wanted to help another couple. A contract was signed. The Sterns accepted all responsibilities for the baby even if there were birth defects; amniocentesis was required; an abortion was agreed to if problems were detected; \$10,000 for Whitehead was put in escrow; and the baby would be given to the Sterns. IUI was performed, and a pregnancy resulted.

After the baby's birth, Whitehead changed her mind about surrendering the baby and refused the payment. When authorities came for the baby, she took her and fled to Florida. This prompted a three-month search by the FBI, police, and private detectives. When they were caught, the baby was returned to the Sterns, and the legal battle began. Ultimately, the New Jersey Supreme Court ruled that surrogate motherhood contracts are illegal; that both the Sterns and Whitehead had claim to the baby but that it would be awarded to the Sterns based on the perceived best interests of the baby; and that Whitehead would get visitation rights.

**Gestational Surrogacy.** A modification of surrogate motherhood occurs when a woman is hired only to gestate an embryo created from the sperm and egg of a contracting couple. In other words, the egg is not contributed by the surrogate, who agrees only to have the embryo implanted, to provide gestation, and to give the resulting baby to the contracting couple. In the United States about 750 births per year occur to gestational surrogates.

## Analyzing Surrogate Motherhood

**The Case for Surrogate Motherhood.** Proponents of surrogate motherhood base their position on two primary points. First, there is a constitutionally protected right to **procreative liberty**. While some recent Supreme Court decisions have limited full access to abortion services, there is a tradition of judicial and

legislative action that suggests a fundamental right not to procreate. The right *to* procreate has not received the same explicit judicial endorsement because states have not challenged married couples' efforts to give birth. Nevertheless, the Supreme Court, on several occasions, has indicated strong support for procreative liberty—especially for married persons.

Proponents of surrogate motherhood and the other new assisted procreative techniques contend that this right to procreate extends to noncoital as well as coital reproduction and extends to the use of donors and surrogates. Noncoital, assisted procreation would be supported by the same values and interests that have always supported coital reproduction (e.g., a right to privacy and a belief that families provide emotional and physical support). Infertility ought not to be allowed to unnecessarily restrict a couple from procreation.

Second, use of surrogate motherhood is an expression of the involved parties' autonomy and may directly benefit everyone involved. Couples unable to procreate without such technology are given the expanded option of producing an offspring genetically related to at least one of the parents. The offspring will be born into a situation where he or she is very much desired given that the parents have gone to considerable lengths to have the child. The surrogate mother has the opportunity to make a contribution to others' happiness and to earn a not insignificant sum of money (though paltry if considered by the hour). All assisted procreative techniques are freedom-enhancing procedures (Robertson, 1994).

**The Case Against Surrogate Motherhood.** Opponents of surrogate motherhood level three main criticisms. First, surrogate motherhood is not in the best interests of the surrogate mother, the baby, and even the contracting couple. The deliberate separation of genetic, gestational, and social parentage places everyone involved in an awkward and improper position. Reproductive arrangements are negotiated between non-spouses; the surrogate mother conceives without an intention to raise the baby, who could

foreseeably be denied important medical information about lineage and could be psychologically harmed when told about the circumstances surrounding the birth. Both families could experience tension due to the unusual status of the surrogate offspring.

The legal and ethical requirement of an informed consent (see Chapter 12) may inherently be violated in the surrogate motherhood contract. Critics charge that it is impossible for a woman to know at the time a contract is being signed how she will feel about surrendering the offspring once he or she is born. Moreover, the requirement for voluntariness may be violated by the lure of a payment especially for low-income women. If so, surrogate motherhood creates the possibility of exploitation of poor women.

Second, surrogate motherhood has a negative effect on the status of women within society. Woliver (1989) is critical of the extent to which discussions of assisted procreative techniques focus on questions of individual rights and are presented as expanding options for women. She contends that they may expand options for individual women, but they restrict choices for women as a group.

Women's freedom to make parenting choices must be understood to occur within a culture that remains, in many respects, patriarchal. The zeal with which some women desire children and the vestiges of stigma attached to those who do not are culturally influenced. The growing movement to consider the individual rights of the fetus relative to the mother could restrict women's autonomy over their own bodies. In this environment, technologies have significant potential for abuse and oppression (Rothman, 1989).

Third, surrogate motherhood devalues people and creates a "**commodification of life**—treating people and parts of people as marketable commodities" (Rothman, 1988:95, emphasis added):

This commodification process is very clearly seen in the notion of "surrogate" motherhood. There we talk openly about buying services and renting body parts—as if body parts were rented without the people who surround the part, as if you could rent a woman's uterus without renting the woman.

We ignore our knowledge that women are pregnant with our whole bodies, from the changes in our hair to our swollen feet, with all of our bodies and perhaps with our souls as well. (1988:96–97)

According to this line of reasoning, the child—the contracted-for baby—is also commodified in that it is the subject of a contract and, in the end, will be surrendered in exchange for a cash payment. The transaction is tantamount to "baby selling" as the potential baby is "ordered precisely as one orders a car or buys pork futures" (Holder, 1988:55).

### Surrogate Motherhood and Public Policy.

Laws pertaining to surrogate motherhood are the responsibility of each state. There are three main options: (1) to legalize without restriction, (2) to legalize with restriction, and (3) to prohibit.

Strong proponents of surrogate motherhood believe it is inappropriate to place any greater restriction on it than on coital reproductive methods. If (at the least) married couples have a constitutionally based right to reproduce coitally, and if that right extends to noncoital techniques, then the case is made that these techniques ought to have the same lack of restrictions. However, few states have adopted this approach.

Most advocates of surrogate motherhood acknowledge that one or the other (or both) of two restrictions may be appropriate. The first is that states may restrict the ability of the contracting couple to demand specified behaviors during pregnancy and (more significantly) may insist that the surrogate has the right to change her mind by some specified point in time and retain maternal claim to the baby.

The second is that states may prohibit surrogacy for cash payment. The commercial dimension of the technique is the most objectionable part to many people. Macklin (1988) does not believe that surrogacy violates any fundamental moral principle but believes commercialism in the process does. Rothman (1989) would prohibit the surrogate from selling or trading the offspring, although she would be able to give it to a couple in an arrangement that would be tantamount to an adoption. In this case, all parties

would be governed by the traditional rights and responsibilities of an adoption proceeding. Many states are following this policy direction that makes surrogacy legal but only without financial payment. In Great Britain, commercial surrogacy is banned, but the surrogate may receive expenses (usually in the \$15,000–\$30,000 range) for time, lost earnings, and costs associated with the pregnancy.

Finally, many states have banned surrogacy altogether and have established a fine or imprisonment for anyone participating in a surrogacy arrangement.

## SUMMARY

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The myriad of new health care technologies has several social consequences: (1) It creates new options for people, (2) it can alter human relationships, (3) it can affect the entire health care system, (4) it stimulates reflection on important value questions, and (5) it raises social policy questions that must be resolved.

Advances in critical care medicine enable us to keep people alive even though we cannot cure them, relieve all their pain, or sometimes even restore consciousness. The cases of Karen Ann Quinlan, Nancy Cruzan, and Terri Schiavo have clarified the judicial right for competent and incompetent persons to refuse medical treatment—even food and hydration. Despite the reluctance of many health care professionals to provide medically futile treatment—even when demanded by patients’ families—the courts refused to allow a hospital to stop treatment for Helga Wanglie.

The ability to successfully transplant organs and the demand for transplants have raised several complex questions regarding the nation’s organ donation policy and the consequences for individuals who are involved. The United States

In order to evade the strict regulations regarding surrogacy in some countries and to reduce the amount of payment to surrogates, an international surrogacy market has been created in the last decade. This multimillion dollar global industry matches women or couples in wealthy nations with potential surrogates in poor countries. In most cases the contracting woman/couple and surrogate mother never meet. India, with more than 350 surrogacy clinics across the country, has developed the largest industry.

now has a policy of weak required request—patients or their families must be notified about the option of organ donation and a request for donation is to be made. Because many people die before an organ becomes available, there is discussion about going to a more aggressive policy that presumes people wish to donate or even shifting to a policy that enables donors to benefit financially.

Many American couples who are infertile seek one of the assisted procreative techniques for assistance. The most controversial of these techniques is surrogate motherhood. Proponents argue that there is and should be procreative liberty and that patient autonomy demands that couples have access to this technique. Opponents argue that surrogacy is not in the best interest of the surrogate, the child, and even the contracting couple; that the process demeans women and reduces them to their reproductive capacity; and that it leads to a commodification and cheapening of life. Some states have retained the legality of surrogacy, but outlawed payment to the surrogate; other states have banned the practice.

## HEALTH ON THE INTERNET

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The United Network for Organ Sharing makes available to the public updated information about transplant programs and services. Connect to their site at

<http://www.unos.org/>.

Click on “Data Reports and Policies,” then click on “Data” in the top menu, and then click on

“National Data” under “View Data Reports” in the left-hand menu. Answer the following questions by clicking on “Donor,” “Transplant,” and “Waiting List” in “Choose Category.” How many transplants have been done in this calendar year? How many donors were used? Of the donors, how

many were deceased and how many living? How many individuals are currently on the waiting list for a transplant? Go back to “Data” and click on the link to specific organs. Select an organ and determine the kinds of information that are available about the transplantation of this organ.

## DISCUSSION CASE

In 1993, the Dutch Supreme Court officially acted to decriminalize active euthanasia, a practice that had been occurring for more than 25 years. The 1993 ruling protects physicians who engage in physician-assisted suicide or in any form of active euthanasia as long as basic guidelines are followed. The guidelines include the following:

1. The patient’s request is the result of sound, informed consent (the patient is competent and the request is voluntary and made without undue pressure) and is reviewed, discussed, and repeated.
2. The patient’s suffering, both physical and mental, is severe and cannot be relieved by any other means.
3. The attending physician must consult with a colleague regarding the patient’s condition and the genuineness and appropriateness of the request for euthanasia.
4. Only physicians may engage in euthanasia.

Requests for active euthanasia performed by physicians come mainly from patients with

incurable cancer (70 percent), chronic degenerative neurological disorders (10 percent), and chronic obstructive pulmonary disease. Patients seeking active euthanasia report being in both physical and psychological pain. Although Dutch law requires physicians to report the causes of death, some critics charge that active euthanasia is underreported. Estimates are that approximately 4,000 cases of death by active euthanasia or assisted suicide each year. Public opinion polls have found that more than 90 percent of Dutch citizens favor the legalization of physician-assisted suicide and more than 60 percent favor the legalization of active euthanasia performed by physicians.

What arguments favor active euthanasia by physicians, and what arguments oppose the practice? How do these compare and contrast to the arguments cited in the text regarding physician-assisted suicide? Should the United States adopt the Dutch policy? What would be the social ramifications of adopting this policy?

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# CHAPTER 17

## Comparative Health Care Systems

### Learning Objectives

- Identify and describe the major factors that influence the structure of the health care system within countries.
- Discuss the most important issues for health care systems in developing countries.
- Identify and discuss the concept, “global health.”
- Identify and describe the four broad categories of health care systems in the world.
- Compare and contrast the effectiveness of the health care system of China, Canada, Great Britain, and Russia.

Studying the health care systems of other countries offers at least three valuable benefits: (1) an understanding of the diversity of approaches that exist to meet health care needs; (2) an understanding of the variety of factors that have shaped the development of these approaches; and (3) an understanding of how the health care system in the United States compares and contrasts with those in other countries. Donald Light, who has written extensively on health care systems around the world, has said that the health care system in the United States “is so unusual that only by comparing it with other systems can those of us who live inside it gain the perspective we need to understand how it works” (Light, 1990:429). See the In the Field insert, “Rating the World’s Health Care Systems.”

### MAJOR INFLUENCES ON HEALTH CARE SYSTEMS

Comparative studies of public policy have taught at least one clear principle: Every public policy in every country at any given point in time is shaped by a unique configuration of forces. Whether

the subject is policy as it relates to education, the environment, or health care and whether the focus is the United States, China, or Canada, a host of factors are important determinants.

The range and number of factors that influence or determine what governments do or, for that matter, what they choose not to do, are virtually infinite. Public policy may be influenced by prior policy commitments, international tension, a nation’s climate, economic wealth, degree of ethnic conflict, historical traditions, the personality of its leadership, the level of literacy of its people, the nature of its party system, and whether it is governed by civilian or military leaders. . . . Virtually anything can influence or determine what governments do. (Leichter, 1979:38)

However, social scientists are able to see patterns among these forces and have identified four key influences on the health care and other social systems (Leichter, 1979; Lassey, Lassey, and Jinks, 1997):

1. *The physical environment* (e.g., the presence of environmental pollutants and the resources needed to combat them)

2. *Historical and situational events* that influence health care policy (e.g., America's depression in the 1920s and 1930s)
3. *Cultural norms and values* [e.g., Lynn Payer (1989) relates the propensity of American physicians to order more drugs, do more diagnostic procedures, and do more surgery than their European counterparts to the aggressive "can do" spirit that is part of the cultural makeup of the United States]
4. *The structure of society*, including political factors (the extent of government centralization), economic factors (the level of national wealth), demographic factors (age structure and degree of urbanization), and social factors (reliance on family versus social organizations)

Of course, not all social scientists assign the same weight to each of these factors in public policy formation. For example, in the United States, many economists hold to a *popular*

*choice* position—that we have the type of health care system we do because it is the type of system people want. People's preferences are expressed through individual decisions in the marketplace and through voting behavior. Others, including many sociologists and political scientists, favor a *power group* explanation—that health policies have largely been shaped by the power and influence of certain groups (e.g., the AMA, hospitals, and insurance companies). Some analysts emphasize the influence of economic development and demographic makeup (e.g., the influence of available resources and the percentage of elderly within the society). Marxist analysis focuses on the role of class formation, class interests, and the political behavior of the classes and explains America's lack of universal health care coverage as being due to the weakness of labor unions and the absence of an influential and broadly based socialist party.



## IN THE FIELD

### RATING THE WORLD'S HEALTH CARE SYSTEMS

In recent years, several impressive efforts have been undertaken to evaluate and rate the world's health care systems. In 2000, the World Health Organization evaluated the health care system of 191 nations on health care delivery. The report took into consideration the overall health of each country, health inequities in the population, how nations respond to problems in their health care systems, how well people of varying economic status within a country are served by their system, and how costs are distributed. What country earned the highest score? The top scorer was France, which was followed in the rankings by Italy, San Marino, Andorra, Malta, Singapore, Spain, Oman, Austria, and Japan. Despite spending much more money on health care than any other nation—both in absolute and relative terms—the United States finished 37th (World Health Organization, 2000).

A joint study by the Organization for Economic Cooperation and Development

and the World Health Organization compared the current performance of the health care systems in 29 modern, industrialized nations relative to studies conducted in 1960 and 1980. Evaluation focused on six categories of performance: (1) preventive health care (e.g., immunization and promotion of healthy lifestyles); (2) health care use and services (e.g., number of physician visits per year); (3) sophisticated technology (e.g., availability of high-technology equipment); (4) mortality; (5) health system responsiveness; and (6) stability of per capita health spending relative to national income. On most indicators, the United States fared poorly. The overall relative performance of the United States and its relative performance on most individual categories had declined since 1960, and the United States did not improve its relative ranking in a single category (Anderson and Hussey, 2001).

## HEALTH CARE SERVICES IN DEVELOPING COUNTRIES

The world's developing countries experience a doubly difficult situation with regard to providing for the public health: more health problems and considerably fewer resources to invest in the health care system (see Table 17–1). Developing countries today still have high rates of many communicable diseases; increasingly high rates of chronic, degenerative diseases; and much less money to invest in the health care system.

Over the next several decades, developing countries are expected to undergo an epidemiological transition as their disease and illness pattern comes to more closely resemble that of developed countries. Expected improvements in prevention of acute infectious diseases should lead to a reduction in mortality in children under age 5 and an overall decline in mortality from communicable diseases but higher rates of diseases like heart disease and cancer. Wide variations will likely continue to exist among low-income countries. Today, adult mortality in sub-Saharan Africa is more

than twice that found in Latin America and the Caribbean.

It will be a major challenge for developing countries to inject sufficient money into the health care system to keep apace of already existing problems and those created by the transition. Today, low-income countries spend only about 4 or 5 percent of their income on health care—about one-half of what most developed countries spend. High-income countries have four times more hospital beds per capita than low-income countries and about seven times more physicians per capita (World Health Organization, 2010).

Health system reform movements in developing countries are already facing some of the same problems as are developed countries: access to care, quality of care, and system efficiency. More resources need to be invested in the public health infrastructure, especially in rural areas. Given the government's smaller revenue-raising ability, pressures mount to turn more of the system over to the private market. This may work to the benefit of the middle and upper classes, but it forces many in the lower classes out of the health care system as it did in the United States

**TABLE 17-1** Wealth of Country, Per Capita Gross Domestic Product, and Per Capita Health Expenditures, 2011

	Per Capita GDP	Per Capita Health Expenditures
<b>High Income Countries (Exs.)</b>		
Canada	\$52,219	\$5,630
United States	\$51,749	\$8,608
United Kingdom	\$39,093	\$3,609
<b>Upper Middle Income Countries (Exs.)</b>		
Brazil	\$11,340	\$1,121
Romania	\$ 9,036	\$ 500
China	\$ 6,091	\$ 278
<b>Lower Middle Income Countries (Exs.)</b>		
Egypt	\$ 3,256	\$ 137
Vietnam	\$ 1,755	\$ 95
Pakistan	\$ 1,257	\$ 30
<b>Low Income Countries (Exs.)</b>		
Haiti	\$ 771	\$ 58
Afghanistan	\$ 687	\$ 56
Central African Rep.	\$ 483	\$ 18

Source: World Bank. *World Development Indicators*. 2011. [www.data.worldbank.org/indicator](http://www.data.worldbank.org/indicator)

prior to the Affordable Care Act. The accompanying box “The Globalization of Health Care” describes the very significant efforts occurring today in the globalization of health care.

Nevertheless, there are some significant success stories in the efforts of low-income and middle-income countries to create and maintain effective health care systems. As recently as 1970, Mexico’s health care system was in some disarray, and health indicators were similar to those in many developing countries. But, significant improvements were made in the final decades of the 1900s, and in 2003, Mexico approved landmark health reform legislation that created a government-funded system (*Seguro Popular*) to deliver medical care to all citizens regardless of ability to pay. Approximately 50 million

previously uninsured persons received health care insurance with this new system, while health care costs in the country were maintained at 5.6 percent of total spending—a very manageable level. Until this time, the only insurance available was through one’s employer or through expensive private insurance.

Since this time, Mexico has experienced marked improvement in health indicators for both children and adults. While much remains to be done to close disparity gaps and to make services available to those living in rural areas, Mexico has thoughtfully reformed its health care system by using scientific assessments of the quality and outcomes of each aspect of its system. It is a good example of a country that is using a public-private mix of health care services.



## IN COMPARATIVE FOCUS

### THE GLOBALIZATION OF HEALTH CARE

When many people think about **global health**, they think only of health problems in developing countries. While that is part of it, the concept entails a much broader focus and includes (1) health problems that transcend national borders (like swine flu), (2) health problems of such magnitude that they impact economic and political systems around the world (like HIV/AIDS), and (3) health problems that require cooperative action and solutions by more than one country (like SARS) (FamiliesUSA, 2010).

These health problems require significant attention to a variety of issues related to health:

1. Health and climate change and other changes in the ecosystem (the countries that will be most negatively affected are those that have contributed the least to the problem).
2. Food security (the world had an estimated 870 million chronically hungry people in 2012 with devastating health consequences).
3. Acute, infectious diseases such as malaria and diarrheal diseases that are continuing problems in many areas of the world.
4. Chronic, degenerative diseases such as cancer and heart disease that are common causes of death in the developed world and are increasingly common in developing countries.
5. Maternal and child health as maternal mortality rate and infant mortality rate in particular continue at unnecessarily high levels.
6. Inadequate, ineffective, and inequitable health care systems that do not offer the necessary health support to people.
7. Shortages of health care workers—with the accompanying problem that wealthy countries sometimes recruit trained health care workers from developing countries—and shortages of medical equipment and supplies.

Sometimes, commentators ask why people in modern countries like the United States should have any concern about worldwide health problems or problems that occur primarily in developing countries. FamiliesUSA (2010), an organization that promotes global health programs, offers four reasons:

1. Humanitarian reasons—hundreds of millions or more people continue to suffer needlessly.
2. Equity reasons—roughly 90 percent of the world's health care resources are spent on 10 percent of the world's people.
3. Direct impact reasons—in the increasingly connected world, diseases have an easier time than ever to migrate from nation to nation.
4. Indirect impact reasons—countries with significant health problems often experience economic and political instability that has worldwide consequences.

Are global health problems so immense that there is little hope of any significant impact on them? No. All of the discussions that have occurred in the World Health Organization, FamiliesUSA, Global Health Initiative, and many, many other groups are a needed step in genuinely addressing these problems. Representatives from disciplines such as

public health (which has always had a strong global component), medicine, law, international relations, sociology, anthropology, economics, political science, management, environmental science and policy, and others are combining their expertise to combat global health problems. **Global health partnerships (GHPs)** are being developed in other countries by many American and European universities, by private foundations such as the Bill and Melinda Gates Foundation, and by public health/epidemiological groups such as the WHO and CDC. Some schools and programs are affiliating with hospitals, schools, and programs in Africa, Asia, and South America. For example, Harvard University has established partnerships in Dubai, Turkey, and India. The University of Virginia is working with a program in Lesotho. Among other benefits, these programs will improve the medical infrastructure in these countries and hopefully entice more trained health workers to stay in their home country (Crone, 2008; Ngoasong, 2009).

## TYPES OF HEALTH CARE SYSTEMS

The world's health care systems can roughly be organized into four categories:

1. ***Private insurance with private, entrepreneurial services.*** The United States has been the only modern nation in the world to emphasize the private market in the health care system. Health insurance companies, pharmaceutical companies, medical equipment companies, and many hospitals are run to make a profit. Of course, as we learned in Chapter 14, there has also been a large public (government) sector in the U.S. health care system. Prior to recent health care reform, 47 million people in the United States lacked health care insurance. All other modern countries believe health care is a right, and everyone in these countries receives health care at no or minimal cost.
2. ***National health insurance with private, regulated services.*** With some variations, the health care system in these countries is private

as it is in the United States. However, the federal government has established a plan (plans differ from country to country) whereby everyone is covered by health insurance and receives health care at no or minimal cost at the point of service. Canada is an example of this type of system and is one of the countries described in detail later in this chapter.

Germany has a model that is similar in many respects to that found in several European countries. The federal government requires all individuals to have health insurance, but it does not directly provide insurance. German people buy either heavily regulated nonprofit insurance (about 85 percent purchase this plan), private insurance (10 percent), or one of several other arrangements (5 percent). The government requires nonprofit health insurance to be comprehensive, not to turn away anyone due to a preexisting condition, and to have premiums based on ability to pay. There are no deductibles, only very small co-payments, and ready access to all health care services.

Most hospitals are government-owned (50 percent of all hospital beds) or have nonprofit ownership (about 35 percent of beds). Most physicians work in private practices or work in a hospital for a salary. Physician compensation is negotiated by professional medical associations.

The German health care system is widely respected around the world, and within the country, health indicators are very good, and there is much public satisfaction within the system.

**3. *National health insurance with public, regulated services.*** Countries with this approach have public ownership of the health care system and publicly provided health insurance. The government owns health care facilities, employs health care workers, and collects taxes to pay for health care. Patients receive health care at no or minimal cost at the point of service. General practitioners must be seen in order to receive a referral to a specialist. Many of these countries now allow a small private sector for wealthier patients who desire quicker or enhanced (e.g., a private hospital bed) service. Great Britain is an example of this type of system and is one of the countries covered in detail below.

Norway offers a government-owned and government-run health care system with publicly provided health insurance. All individuals receive comprehensive health care services at no or minimal cost at the point of service. Private insurance is also available but rarely used because the public system is so good. Individuals would typically buy private insurance to avoid a hospital waiting list or for services like plastic surgery.

Most physicians are salaried, although some exceptions exist. The government pays for the program from general tax revenues rather than a specially designated tax. General practitioners must be seen in order to receive a referral to a specialist.

The Norwegian health care system is widely respected around the world and within the country, health indicators are very

good, and there is much public satisfaction within the system.

**4. *National health insurance state-run system (socialized medicine).*** Countries with this approach have an entirely government-owned and government-funded health care system. All health care workers are employees of the government. Theoretically, at least, there is no private health care sector. The government typically conducts extensive health care planning, budgeting, organization, and regulation. For example, in the former Soviet Union, a country covered in detail below, patients were assigned to a particular neighborhood physician, and physicians were assigned a particular roster of patients. Patients receive health care at no or minimal cost at the point of service. Patient waiting times vary but typically are not long.

Having already examined the U.S. health care system, the four countries selected for review in this chapter represent a cross section of other approaches. Many Chinese people are still extremely poor, although there is increasing wealth in the cities. Canada illustrates the national health insurance with private, regulated services approach. Great Britain illustrates the national health insurance with public, regulated services model. Russia, when it was part of the Soviet Union, illustrated the national health insurance state-run system (socialized medicine) model.

Each of the countries' health care system is described by (1) its historical, political, and philosophical foundation; (2) the organization of the health care system; (3) the extent to which health services are accessible to the people; (4) indicators of the performance of the health care system; and (5) recent developments in the system. Table 17-2 compares these four countries with the United States on four important demographic indicators, and Table 17-3 compares the level of advancement in health care of technology, resources, and access.

As you are reading about the individual countries, note how each is affected by the same

**TABLE 17–2 Vital Statistics for Ten Countries (From Table 17–1), 2013**

Country	Median Age	Health Expenditures % of GDP (2010)	Life Expectancy	Infant Mortality Rate
Selected Countries				
Canada	42	11.3	81.6	4.8
China	36	5.1	75.0	15.2
Germany	46	11.6	80.3	3.5
Ghana	21	5.2	65.3	39.7
India	27	4.1	67.5	44.6
Norway	41	9.5	80.4	3.5
Russia	39	5.1	69.9	7.2
Tanzania	17	6.0	60.8	45.1
United Kingdom	40	9.6	80.3	4.5
United States	37	17.9	78.6	5.9

Source: Data from Central Intelligence Agency, World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html>.

**TABLE 17–3 Comparative Analysis of the Health Care System in Five Countries**

Country	Level of Advancement of Health Care System		
	Technology	Resources	Access
China	Low	Low	Moderate
Russia	Low	Low	Moderate
Canada	High	High	High
Great Britain	High	Moderate	High
United States	High	High	Moderate

Source: Marie L. Lassey, William R. Lassey, and Martin J. Jinks, *Health Care Systems Around the World* (Upper Saddle River, NJ: Prentice Hall, 1997).

key forces (e.g., rapidly escalating health care costs), and note the similarities and differences in the types of responses being made. For each country, consider how its health care system has been influenced by environmental, situational-historical, cultural norms and values, and structural factors described above.

## CHINA

### The Historical, Political, and Philosophical Foundation

With a population of 1.4 billion people, China has about one-fifth of all the people in the world and more than any other country. These

people live on a landmass that is similar in size to the mainland United States. Only recently has a majority of China's population been urban-based. China is undergoing rapid modernization, but many Chinese people continue to remain very poor.

Relative to health care, three distinct phases are apparent in China's recent history: (1) the focus on improving health care from the time that Mao Zedong came to power in 1949 until 1965; (2) the radical restructuring of the health care system during the Cultural Revolution from 1965 through 1977; and (3) the initiation of reform efforts and movement toward free market entrepreneurialism from the late 1970s until today.

Mao inherited a China in desperate condition. Plagued by years of both civil war and war with Japan, the economy was in shambles with both agricultural and industrial productivity at low levels. Food shortages were common as were epidemics of disease. About one baby in five died in the first year of life, and almost one in three before age 5. Hospitals and other health facilities were in desperately short supply in urban areas with even fewer in rural areas. Most physicians practiced only traditional Chinese medicine that had been learned through apprenticeships.

At the very first National Health Congress, Mao presented four precepts as the ideological basis for health services:

1. Health care must be directed to the working people.
2. Preventive medicine must be given priority over curative medicine. By the mid-1960s, the government had conducted several Patriotic Health Movements in which millions of Chinese worked at getting rid of the “four pests” (flies, mosquitoes, bed bugs, and rats), improving general sanitation, preventing parasitic diseases, and eliminating venereal disease.
3. Modern health care needed to be added to traditional Chinese approaches. The Chinese adage “China walks on two legs: one traditional and one modern” is nowhere more true than in medicine.
4. Health workers must be involved with mass movements. An example is the family planning movement in China with the mandatory “one-child per family” objective.

Considerable efforts were directed to increasing access to medical care for the massive rural population. Rural areas were divided into communes (which averaged between 15,000 and 50,000 people), which were subdivided into *production brigades* (1,000–3,000 people), each of which had its own health station. These health stations were staffed by public health workers, midwives, and barefoot doctors. **Barefoot doctors** (later called *countryside doctors*) were peasants who had received a few months of medical

training and then returned to their commune to treat minor illnesses (including colds, gastrointestinal ailments, and minor injuries), provide immunizations and birth control, and improve sanitation. Their existence compensated for the critical shortage of physicians in rural areas.

Within a decade and a half, substantial progress had been made. However, in 1966, frustrated and angered that his ideas were being incorporated too slowly and mistrustful of various societal institutions including medicine, Mao launched the Cultural Revolution—a violent campaign of political and social repression. Those who were suspected of having ideological differences with Mao were imprisoned, tortured, and sometimes murdered. Schools and medical colleges were closed, medical research halted, and health expenditures reduced. Mao proclaimed that the health care system was not sufficiently directed toward rural areas, that medical education had become too Westernized (meaning theoretical) and not sufficiently practical, and that many physicians were shunning traditional Chinese medicine in favor of Western approaches.

During these years and even for a few years following the death of Mao in 1976, China was committed to a socialist economic system with extensive government control of all areas of the economy. This system was believed to offer the most effective strategy for ensuring that the basic needs of the people were met. Access to health care was deemed a right of all people, and there was a strong moral commitment to providing health care free or at very little charge. Emphasis was placed on preventive care, the use of minimally trained health care personnel, and the combining of traditional Chinese and Western-style medicines. The Chinese health care system became the envy of developing countries around the world.

However, Chinese leaders became frustrated at the slow pace of modernization. Since 1980, leaders have insisted that, while China remains a socialist country politically, efforts to accelerate economic development should occur by shifting from a planned economy with extensive control by the national government to a market-oriented

economy. Private ownership of enterprises and private investments in health care, as in all sectors, have been encouraged. This has created a dramatic transformation for the country—rapid industrialization and considerable economic development, but a health care system often less accessible to its people.

### Organization of the Health Care System

China is comprised of 3 centrally administered metropolitan areas (Beijing, Shanghai, and Tianjin), 5 autonomous regions, and 22 provinces. While the Ministry of Health in Beijing formulates health care policies, establishes prices that physicians can charge, and supervises medical research for the entire country, it is now the health department in each province that oversees health resources within the jurisdiction and local governments that are primarily responsible for the financing and delivering of health care services. This system has been described as having “highly decentralized control with increasingly decentralized responsibility” (Lassey, Lassey, and Jinks, 1997).

China has a three-tiered system for delivering health care in both rural and urban areas. In rural areas, the tiers consist of *village health stations* (staffed by physicians with three to six months of medical training after junior high school), *township health centers* (with 10–20 beds and staffed by physicians with three years of training after high school), and *county hospitals* (with 250–300 beds and staffed by physicians with four to five years of training after high school) (Hsiao and Liu, 1996).

Before the private market-based economic reforms, township health centers and county hospitals received most of their funding from the government with only supplemental payments from patients and health insurance. This **cooperative medical care system** ensured that most everyone had access to care. After the reforms, the government share was cut back to just 20 to 25 percent of hospital expenses, so that the remainder had to be collected from patients on a fee-for-service basis and from health insurance (which is owned by only a small percentage of

the population). Government funds for preventive care and public health were also scaled back (Hsiao and Liu, 1996).

The government does continue to set the prices that providers can charge, and for all services except drugs and high-technology care, these are set at below cost. So, in order to make money, physicians tend to overprescribe drugs and overuse high-tech care—both of which have a steep markup.

In urban areas, the three tiers are the *street health station*, *community health centers*, and *district hospitals*. About half of China’s urban population are covered under one or the other of two different insurance systems, one of which covers all government employees, retirees, disabled veterans, and university teachers and students, and the other of which covers employees (and their dependents and retirees) of state enterprises with more than 100 employees. These are basically health insurance plans that provide comprehensive benefits with minimal cost sharing (Yip and Hsiao, 1997).

### Accessibility of Health Care

The advent of capitalism into health care largely led to the dissolution of the cooperative medical care system. Local governments cut subsidies to rural hospitals and clinics. The decreased funding led to many countryside doctors entering farming and other occupations where they could make more money or entering the private practice of medicine, so that they could charge fees.

Rural peasants, who had been able to receive services for no payment or only a small payment, became subject to a fee-for-service system in which they pay the village doctor out of pocket. In this respect, accessibility to care now depends largely on the patient’s ability to pay, and many persons are unable to afford the fees.

### Performance of the Health Care System

Partly as a result of these changes in health care delivery, disease patterns in China vary considerably between urban and rural areas and between wealthy and poor people. In urban China, the major health concerns are the same



China's health care system is currently undergoing a major privatization, but, today, it has many serious problems.

as in the industrialized world: heart disease and cancer. Lung cancer has become a particular problem in China. About 300 million Chinese smoke cigarettes (70 percent of adult males but just 7 percent of adult females are smokers), 750 million are affected directly by second-hand smoke, and death and illness from smoking-related causes have become a paramount health concern. In addition, the typical diet contains an increasingly high percentage of fat (there are many fast-food restaurants), lifestyles are becoming much more sedentary, once unheard of obesity is increasing (20–30 percent of Chinese people are overweight or obese), and excessive alcohol consumption is becoming more of a problem. HIV/AIDS, long ignored by the government, is now acknowledged as a significant problem. The recent SARS epidemic brought worldwide attention to the lack of adequate health preparation in China.

In rural areas, environmental pollution and the absence of safe drinking water (a major source of stomach, liver, and intestinal cancers) continue to be tremendous problems. Nutrition-related diseases, parasitic diseases, tuberculosis,

and hepatitis B are common. After decades of significant health progress, the inattention given to the health care system since economic reform is now showing up in declining health indicators. While overall mortality rates and infant mortality rates decreased significantly in the 1960s and 1970s, they have been relatively stable since then despite improvements in living standards and in nutrition and sanitation.

China has rapidly increased its number of physicians in recent years, but a serious shortage remains in rural areas. Some progress in assimilating advanced medical technology has been made, but expansion has come slowly, and few high-technology services are offered outside large, urban areas. Overall, China spends less than 5 percent of its gross domestic product on health care—a percentage that is high for developing nations but considerably less than what is spent in industrialized countries.

### Recent Developments in Health Care

The commitment to a private market economy remains strong in China, but it has led to

a seriously weakened health care system, especially in rural areas. The barefoot doctors are long gone and have been replaced by hospitals and clinics with prices beyond the reach of many of the rural population. The government contributes so little money to rural medical facilities that physicians order unnecessary procedures for which patients are overcharged. Additional bribes from patients in order to receive services are frequently necessary. An estimated 90 percent of rural residents lack health insurance (Blumenthal and Hsiao, 2005).

In recent years, China has made a significant commitment to improving its health care system and to providing universal access to effective, safe, and low-cost health care by 2020. Among the specific programs started since 2009 are:

1. An infusion of more than \$125 billion to build new clinics and hospitals throughout the country.
2. Special state-subsidized health insurance for rural residents. More than 95 percent of Chinese people are now covered by some form of health insurance, but often the insurance pays a relatively small fraction of medical bills.
3. An increase in private market opportunities for international companies to build private hospitals, to engage in research and development activities, to sell pharmaceuticals and medical devices. In 2011 a public-private health care partnership between China and the United States was created to boost health care knowledge, technology, and development in China and to open a new lucrative market for U.S. medical goods.

Nevertheless, most observers say that the Chinese medical care system is today still very much inequalitarian, wasteful of resources, and largely in disarray (Bardhan, 2008; Mufson, 2009). Many analysts are skeptical that current proposals adequately address the wasteful aspects of the current system especially physician practices in overprescribing drugs, overusing costly tests, and accepting bribes (Ramesh and Wu, 2009).

## CANADA

### The Historical, Political, and Philosophical Foundation

The nation of Canada is a federal system—its 34+ million people are spread across a loose confederation of ten provinces, from Newfoundland off the east coast to British Columbia in the west, and two territories, the Yukon and the North West territories. Much of the political structure of Canada was created under the British North America (BNA) Act, which was passed by the British Parliament in 1867. It guarantees considerably greater autonomy to the Canadian provinces than that held by individual American states. The BNA Act allocated to the federal government all matters of national concern plus others thought likely to be most costly; it allocated to the provinces more local and (presumably) less costly activities such as education, roads, and health care.

Throughout the early decades of the twentieth century, limited programs for health insurance were offered by local governments, industries, and voluntary agencies. These programs covered only selected services and left much of the population uninsured. Not until the mid-1940s did Canada begin to earnestly consider universal health insurance. This consideration was stimulated by three factors: the extreme prevalence of poverty brought on by the depression, the inability of local governments to offer substantial help due to their own near state of bankruptcy, and the despair of physicians who were frequently not paid. Significant disparities in wealth among the provinces led to additional inequalities in health services.

Although a universal plan was defeated at this time because of fears of federal infringement of provincial authority, the widespread health problems of Canadian people and the inadequacy of available health care facilities and programs were well documented. As a beginning but precedent-setting step, the federal government initiated financial assistance to the provinces for creating additional health care resources.

The transition to a universal health insurance plan occurred gradually. In 1946, the

Saskatchewan government enacted legislation for a universal, compulsory hospital care insurance plan for all its citizens. The success of this program led additional provinces to enact similar programs. These were quite successful and well received but very expensive—prompting the provinces to encourage the federal government to develop a national plan. However, as the concept was becoming more popular with the general citizenry and with political leaders, increasing reservations were expressed by physicians fearing a loss of professional autonomy and by private insurance companies fearing their own elimination.

Finally, in 1968, Canada passed the **Medical Care Act**, which brought all the provinces together in a universal national health insurance program. The federal government agreed to pay for half of the health care costs in each province as long as their health care services complied with four conditions: (1) They provided *comprehensive* services with no benefits limitations, (2) benefits were *universal*—available to all—and provided uniformly, (3) benefits had to be *portable* so that citizens were covered wherever they were in Canada, and (4) the plans had to be *publicly financed and administered by an agency accountable to the provincial government*.

Although the system worked well, the federal government soon realized it not only lacked control over the amount of funds expended by the provinces (and the provinces had little incentive to control costs) but also received little political credit for its substantial contribution. In 1977, a key compromise, **Bill C-37**, was enacted. This legislation enabled the federal government to reduce its financial contribution to 25 percent, with a corresponding reduction in federal and corporate taxes. The provinces, whose share increased to 75 percent, were able to increase their taxes so as to generate sufficient revenue to fund the program. In addition, the provinces were provided greater latitude in managing the program, with the desired effect that they become more cost conscious.

The law pertaining to health insurance was modified again in 1984 in the Canada Health

Act. Concerned that some physicians were “extra-billing” (i.e., directly charging patients fees above the reimbursement amount); this law mandated that physicians accept the reimbursement as their total payment. This legislation was not well received in the medical profession. For example, although only about 10 percent of physicians in Ontario were extra billing, a series of general strikes occurred to protest the government’s increased regulation of physicians.

Two key values underlie the Canadian national health insurance system. First, Canada has established a “right” to health care for all its citizens and eliminated financial barriers to care. In doing so, the Canadian people have made an important statement about the social unity of the country, the high value placed on social equity, and the worth of people independent of their ability to pay for a service. Many would say that these values are more reflective of Canadian than American culture.

At the same time, Canada has maintained the private nature of the medical profession. Canadian physicians are not government employees and have considerably greater autonomy than their counterparts in Russia or even Great Britain. Canada’s intention has been to offer publicly funded insurance for health care in a privately controlled system.

### Organization of the Health Care System

Within the national government, the ultimate authority on health care is the health minister who directs national health care policy, works with the Parliament on relevant legislation, and serves as an important liaison with the health minister of each of the provinces. Because health is still primarily a provincial responsibility, much of the work related to medical education and medical licensure, hospitals, and public health occurs at the provincial level. While policies, procedures, and standards among provinces tend to be comparable, this is not required and variations do occur.

About 75 to 80 percent of Canadian physicians are in office-based private practice, with most of the remainder based in hospitals. As

in the United States, however, most office-based physicians (generalists and specialists) have hospital privileges and admit and tend to patients there. Patients have free choice of physicians, and physicians have the option of accepting or rejecting any new patient.

The national health insurance plan is funded from federal and provincial tax revenues and insurance premiums are paid by all taxpaying citizens. The government utilizes a variety of “supply-side” cost-containment measures. The most important of these mechanisms is prospective budgeting, whereby hospitals are financed on the basis of annually negotiated prospective budgets within each province. Capital expenditures are handled separately and do not come out of the assigned allocation but do require government approval.

Other key mechanisms used to control costs by controlling the supply of health care services include (1) determining the level of reimbursement for physicians (currently at 75 percent of established fees); (2) controlling the number of physicians by limiting enrollments in medical schools; and (3) minimizing the presence of private health insurance, which is available only to cover supplemental benefits (e.g., a semiprivate room in a hospital, dental and eye care, and prescription drugs).

A key issue within medicine in Canada is the degree of autonomy held by physicians. Policy discussions regarding national health insurance have typically been sensitive to preserving the “private” nature of the profession and have avoided language that suggests that physicians are government employees.

In reality, however, the line is not so distinct. Physicians are reimbursed directly by the provincial government on a fee-for-service basis, but these fees are established in annual negotiations between the provincial medical association and the provincial government. Through these negotiations, prices are set for each medical service. The negotiated reimbursement schedules are binding, include little variation by medical specialty or complexity of care delivered to individual patients, and prohibit extra billing. Even physicians who have entirely “opted out”

of national health insurance (an option taken by only a small percentage of Canadian physicians) are prevented from charging patients more than the specified reimbursement level.

All of this has led to continuing criticism that the medical professional has in reality been “de-privatized.” Provincial governments reimburse physicians for only a percentage of the fee schedules set by the medical associations. This has been acceptable to most physicians, however, because they know that they spend considerably less time on billing and other administrative paperwork and pay significantly less for malpractice insurance than physicians in the United States.

Physicians enjoy high esteem in Canada, which is reflected in salaries in the top 1 percent of all professions. Although some physicians have complained that national health insurance has depressed their incomes, incomes have continued to increase at a reasonable level.

### Accessibility of Health Care

All basic hospital and physician services and other services deemed to be necessary are covered for Canadian citizens. The only out-of-pocket health care expenses are for private insurance or direct payment for eye care, dental care, medication purchases for ambulatory patients, and, if a person desires, a semiprivate versus ward room in a hospital.

This system has enabled broad access to the health care system. Research has documented a greater use of physician and hospital services by Canadians than Americans—especially among lower income persons. One recent study found that residents of Ontario averaged 19 percent more visits than Americans to physicians and that this difference was even greater among those with low income (who averaged 25–33 percent more visits) (Katz, Hofer, and Manning, 1996).

Critics of the Canadian system counter that accessibility to care in Canada is limited by reduced availability of physicians, surgical procedures, and high-technology equipment. The relative lack of equipment and resources means

that patients are not seen as promptly as they are in the United States, that queues (i.e., waiting lists) exist for many high-tech diagnostic and surgical procedures, and that fewer of these procedures are provided. One study of comparable hospitals in the United States and Canada found that U.S. medical patients received 22 percent more diagnostic tests than their Canadian counterparts—with almost all the difference being greater use of MRI and CT (Katz, McMahon, and Manning, 1996). These delays in service provision lead some Canadians to cross the border to obtain services in the United States, though this practice is much less common than often portrayed (Katz et al., 2002).

### Performance of the Health Care System

Standard health indicators for Canada are very favorable. Canada is among the upper echelon of countries in the world with regard to life expectancy (longer than in the United States) and infant mortality (lower than in the United States). One recent study found that the health of wealthy Americans is about the same as the health of wealthy Canadians, but that the health of low-income Americans significantly lags behind that of low-income Canadians. In Canada, on most measures, the health of the rich and the poor is about the same; in the United States, there is a significant disparity as low-income persons are much less healthy than those with more money (McGrail et al., 2009).

The extent to which Canada has been able to maintain control over costs while providing high-quality, comprehensive services to its people is an issue that has generated considerable controversy. Many advocates of the Canadian system emphasize that it has been able to guarantee services to all its people while spending a considerably smaller percentage of its gross domestic product (now about 11 percent) than does the United States (at about 18 percent). Canada's willingness to provide universal coverage for health care has given it the bargaining leverage to include mechanisms of cost control. Compared to the United States, Canada invests significantly less money per capita in

administrative costs (the uniform billing system alone saves billions of dollars each year), profits, marketing, legal involvement in medicine, and other “medically irrelevant” areas. As noted in Chapter 14, while as much as 30 percent of the American health care dollar goes for administrative costs, the corresponding figure in Canada is about 16 percent (Woolhandler, Campbell, and Himmelstein, 2004).

Critics of the Canadian system contend that these cost efficiencies come with a price. They argue that even after restricting the availability of services and sacrificing investment in sophisticated high-technology equipment, Canada has not had sufficient money to run this type of health care system.

The recent lack of growth in the Canadian economy along with a high rate of inflation and the aging of the Canadian population (producing greater medical needs and less tax revenue to fund the system) led to significant budget slashing in the mid-1990s. Provincial governments and their health authorities closed or merged some hospitals; removed selected, non-essential medical services from the health care plans; made significant reductions in the number of health care jobs; became more assertive in negotiations for physician fee reimbursement (physicians in some provinces received pay cuts); and reduced budgets for outpatient diagnostic services. Both physicians and patients have lamented these developments.

Canadian citizens have long expressed great pride in their health care system, and this pride has consistently been expressed in public opinion polls. About three-fourth of Canadians consider their health care system to work well or very well. Pre-health care reform, only one-fourth of Americans rated their system as highly. Surveys show that 90 percent of Canadians prefer their health care system to that in the United States. Most people in the United States expressed preference for the Canadian system.

### Recent Developments in Health Care

The Canadian system will need to address two major pressure points in the coming years. First,

a decision will have to be made about the level of funding for the system. After several years of budget slashing, cutbacks in available services, and increased dissatisfaction among providers and patients, the government did commit increased funding to health care in the early 2000s—a development that was received very favorably.

This issue relates to the other pressure point: the public/private mix in the health care system. Some medical professionals and ideological conservatives have long sought to reprivatize the system by shifting financial responsibility away from the government and back to patients (through private insurance), establishing less universal and less comprehensive health insurance plans, and emphasizing market forces in health care by deregulating the field. This position has not been supported by either a majority of the population or the government.

There is currently increased discussion of allowing a private health care system to develop alongside the public system. Proponents argue that this direction is already occurring (private health insurance has gone up in Canada and now pays for more than one-fourth of all health care), and that by allowing patients who want to pay for care to do so, some pressure would be relieved from the public system. Opponents argue that this “two-tier” system would eventually lead to the destruction of the public system by eroding broad-based public support and increasing its costs. This issue will test the commitment of the Canadian people to their traditional health care system during the first years of the new century (Steinbrook, 2006).

## GREAT BRITAIN

### The Historical, Political, and Philosophical Foundation

Great Britain consists of England, Scotland, and Wales. Together with Northern Ireland (the four countries together are referred to as the United Kingdom), it has a total population of about 63 million. The population is overwhelmingly urban, with less than 10 percent of the people

living in rural areas. The health care system of all four countries is very similar, but they do have some differences. Some analyses and statistical reports focus only on Great Britain and some on the United Kingdom. This section largely focuses on Great Britain.

Great Britain’s strong commitment to public responsibility for the health and welfare of its citizens dates back to at least the mid-1800s. The foundation for today’s National Health Service (NHS) was laid in 1867 when Parliament passed the Metropolitan Poor Act—a bill that obligated local governments to provide free hospital care for the poor. The measure appealed both to people’s charitable interests and to a desire to protect the rest of society from contracting diseases from the untreated sick.

By the turn of the century, however, many were dissatisfied with the limited scope of the Poor Act, as Britain was confronted with the same pressures that were occurring throughout Europe to increase social welfare programs. The National Insurance Act (NHI) of 1911, one of several social reforms sponsored by the Liberal government, provided medical and disability benefits and income protection during sickness. The program was compulsory for all wage earners between the ages of 16 and 65 earning less than a designated sum per year. However, the plan was less generous than similar programs in Germany and Japan in that it did not cover dependents of wage earners (except for a maternity plan), self-employed persons (including farmers), or the unemployed. Although NHI achieved its objectives as a limited plan, there was continued interest in a more comprehensive program.

In the early and mid-1940s, Great Britain suffered from the devastation of World War II. Major sections of cities were destroyed, the economy was in chaos, a severe housing shortage existed, and the general health of the population was very poor. The prevailing system could not adequately handle these problems.

The **Beveridge Report** of 1942 analyzed these social problems and recommended major reform through increased government involvement in the economy, education, and health care.

Strong sponsorship by the Labour Party and broad popular support for significant reform in health care existed, although not among physicians, who fiercely resisted change. Eventually, the National Health Service Act of 1946 was passed by a wide margin and the National Health System (NHS) was implemented in 1948. The NHS provided for the entire range of health care services to be available at no charge to the entire population in a system financed by general tax revenues. Despite several major adjustments, the basic health care system inaugurated in 1948 continues today.

Great Britain has a long history of extensive government involvement throughout society's institutions and a commitment to providing for the basic needs of all citizens. Within this "welfare state," the NHS expresses the social value placed on a just distribution of essential resources (like health care). While the current health care system is not without its critics, the "**National**" is a source of great pride.

### Organization of the Health Care System

The health care system has largely been government owned and government run. The government sets health care policy, raises funds and budgets for health care, owns health care facilities, employs physicians and other health care professionals, and purchases medical supplies and equipment. Ultimate authority rests with the Department of Health.

The health care system underwent several significant changes in the 1990s and early 2000s. In the late 1980s, Prime Minister Margaret Thatcher commissioned a report, *Working for Patients*, which advocated making greater use of private market forces to increase competition and efficiency in the system, while maintaining universal and free access.

At the heart of the reform were two basic changes. First, as of 2002, decision-making power was decentralized with localized Primary Care Trusts (PCTs) given the responsibility for running the NHS and improving health in their areas; the PCTs receive 75 percent of the NHS budget. Regional Strategic Health Authorities

oversee the PCTs and engage in health planning. Second, increased competition among hospitals and other facilities was created in hopes of reducing costs and increasing quality of services.

Medical settings are like those in the United States: Physicians work out of offices or clinics or in hospitals. As is true in some managed care networks in the United States, Britain mandates that an initial contact in the health care system be made with a general practitioner (GP).

The NHS is largely (more than 80 percent) financed by general tax revenues, with only about 4 percent of funds coming from out-of-pocket expenses. Patients do pay fees for eyeglasses, dentures, and prescription drugs. Health care from physicians and hospitals is provided to all citizens at no charge at point of service.

Traditionally, there has been a small private health care sector. Recently, however, private health insurance has become more popular, with about 8 percent of the population having a private policy. Physicians are not obligated to register with the NHS (only a handful have not), and registered physicians may accept private patients, although rarely do private patients exceed 5 percent of the total patient load. Private insurance companies do exist and sell private health insurance for a premium. Hospitals reserve a small number of beds ("pay beds") for private patients. Why would anyone purchase private insurance? The primary answer is to avoid long waits ("queues") that typically exist for elective surgery and that sometimes exist for more urgent surgery or even primary care.

Practicing physicians become either general practitioners or consultants. Patients have a free choice of GPs but must get placed on one's roster in order to be seen. Once on a roster, that is the only GP that the patient can use. A patient can switch to another GP by registering with another physician, but this is rare. The GP offers comprehensive primary care and can prescribe medications but must refer patients to a consultant for hospital care.

General practitioners contract with the NHS for reimbursement, which occurs in three ways.

Each GP receives a base salary to cover the fixed costs of operating a practice, a certain amount of salary based on the number of patients accepted on the roster (called a **capitation system**), and additional income based on services such as vaccinations for which a fee is charged. The capitation system is the most controversial of the three sources of income. The NHS has established 3,500 patients as the maximum on a roster, although physicians average only about 1,900. Physicians are obligated to provide care for all patients on the roster, although neither the number of patients actually seen nor the duration of the encounter or the type of treatment dispensed affects salary. Physicians do get a supplement for having certain kinds of people—for example, the elderly or low-income persons—on their roster. Recently, the NHS has begun experimenting with “pay-for-performance” programs in which physicians receive some compensation when their patients hit designated health targets (McDonald, White, and Marmor, 2009).

Consultants, all of whom work in a hospital, are physicians trained in a medical or surgical specialty. They are salaried employees of the NHS. Salaries are the same for all specialties in all hospitals and are determined in an annual negotiation with the NHS. Neither the number of patients seen nor the type of treatments rendered affects salary earned.

Physicians are held in high esteem. Surveys report confidence in physician care; few patients seek a second opinion; and medical malpractice suits are rare. This high prestige is not reflected in salaries to the extent that it is in the United States. Physicians earn considerably above the national average income, but not several times greater as they do in the United States.

### Accessibility of Health Care

Citizens can receive comprehensive health care without payment at the point of delivery. In this sense, services are maximally accessible. Moreover, the government offers incentives to physicians who establish practice in medically underserved areas—this has helped to ease the shortage of physicians in rural areas.

However, the government maintains an important control by determining the amount of money allocated to the health care system. By limiting these funds (as a whole, Britain spends less money per capita on health care than any other country in Europe), the number of health care employees is restrained, and demand for services typically exceeds supply. When patients attempt to make an appointment, they may have to wait for a few weeks. This situation is primarily responsible for the development of the private insurance sector because the privately insured are seen promptly.

The major advantage to the patient of the private sector in Britain seems to be the opportunity to “jump the queue.” In parts of the country where waiting lists for elective surgery may be very long, the private patient can enter the hospital for surgical care at times convenient to the consumer rather than wait upon the convenience of the system. . . . Those who can afford private care can be treated at their convenience and are thus able to sidestep one of the most unpleasant characteristics of the system, waiting time. (Gill, 1994:482)

### Performance of the Health Care System

Standard health indicators reflect positively on the general health of the people. Overall life expectancy is among the highest in the world (higher than in the United States), and infant mortality is very low (less than in the United States). Although no person is ever turned away due to an inability to pay, the NHS is considerably less expensive than the U.S. health care system. In recent years, Britain has spent a little more than 9 percent of its gross domestic product on health care—about half the U.S. level—and it has been criticized as being inappropriately low.

### Recent Developments in Health Care

Years of underfunding have created some problems—mostly staff shortages, overworked workers, and longer waiting times. In response, several significant changes have been introduced in the British health care system in recent years with the largest changes occurring in 2013. As of that time, part of the structure of the

system—including the Primary Care Trusts—was dismantled, and a new structure—Clinical Commissioning Groups—was established. The primary objective of these recent changes is to increase the power of physicians and increase private competition within the system. Patients have been given increased choice of medical provider and can choose between public and private facilities. Proponents believe decentralization and added competition are creating a more efficient health care system.

Critics of the changes express concern that the emphasis on competition and profit making will supersede the traditional closeness of the GP–patient relationship. For example, the increased importance of the capitation system gives physicians an incentive to take more patients onto the roster—thereby reducing the time available for each patient. Some suggest that the system may even increase rather than decrease costs if employers are forced to pay higher salaries in order to attract the best people. These are issues that will be followed closely in the coming years (Black, 2010).

## RUSSIA

### The Historical, Political, and Philosophical Foundation

Russia, with a population of about 142 million people (but changing little from year to year), is the largest of the countries that formed the Soviet Union. In many respects, it falls between the level of modernization of the United States and Western Europe, on the one hand, and developing countries like China, on the other. Since the breakup of the Soviet Union in 1991, Russia has struggled to develop a sound economy and a workable health care system.

The socialized health care system of the Soviet Union traced its roots to the 1917 revolution. Overthrowing the tsar, Lenin and the Bolsheviks moved to establish a working-class society based on Communist principles. Given both the unstable political situation at home and throughout the world and the economic chaos within the country, the Bolsheviks moved

quickly to consolidate their power in a totalitarian government. The power of the Communist party emerged from these events.

The health of the people was a primary concern of Lenin and the new government, and one of their priorities was to establish adequate preventive measures to counter the rampant disease epidemics of the time. In 1913, the mortality rate was 29 per 1,000 people; the infant mortality rate was 269/1,000; and average life expectancy was no more than 32 years—all indicators of grave health problems (Leichter, 1979).

Lenin also determined to sharply reduce the power of the medical profession. Under the tsar, physicians had substantial autonomy and had organized themselves into a medical corporation. This body was political as well as medical and often spoke out against the tsar. Following the 1917 revolution, physicians attempted to alter the structure of medicine to make it more amenable to centralized planning (in accord with Lenin's wishes), but they also attempted to retain extensive professional control over clinical practice. This effort was denounced by the Communists, who were convinced that physicians would always serve the interests of the ruling class. In an effort to deprofessionalize physicians, the government created a medical union in which physicians had no greater say than other health care workers. By the mid-1920s, the medical profession had been transformed into a group of medical experts employed and largely controlled by the government.

The philosophical foundation for the health care system was developed in the first years after the revolution. The guiding principles were as follows: (1) The state has responsibility for public health and the provision of health care; (2) administration of the health care system is highly centralized and bureaucratized but includes public participation; (3) health care is defined as a right of citizenship, and health care services are provided at no cost; (4) preventive medicine is to be emphasized; and (5) medical research must be oriented toward the solution of practical problems—for example, the reduction of industrial absenteeism (Barr and Field, 1996).

These principles guided the health care system in the succeeding decades. Although the

government released little information to the outside world about health indicators, the general perception was that the health care system worked adequately, if not better.

However, when President Gorbachev began to open Russian society to the outside world in 1985, it became obvious that the health care system was in a badly deteriorated condition due to underfunding. While Soviet leaders had painted a glowing picture of their health care system, in reality they had concentrated their attention on rapid industrialization and militarization and had failed to adequately support health care. Although the Soviet Union had more physicians and more hospital beds per capita than any other country, their quality was often very low. Unqualified students bribed their way into medical school; severe shortages of pharmaceuticals and other medical supplies existed; and many medical facilities were crumbling (Barr and Field, 1996).

During the summer of 1991, people throughout the Soviet Union demanded an end to centralized government control and insisted on autonomy for the republics. Their focus was largely on political and economic structures, but changes were initiated in every institutional sector. In medicine, an end was signaled to highly centralized decision making, and planning and efforts commenced to establish more free-market principles in the system. But, the transition to a workable and efficient health care system has been very difficult.

### Organization of the Health Care System

Historically, the chief organizational characteristic of the health care system was its centralized administration. The ultimate authority in the system resided in the national Health Ministry led by a minister of health (typically a physician) and a Council of Health Ministers. This body had responsibility for all planning (which is extensive), coordination, and control of medical care and medical research; for medical education and standards of medical practice; and for formulating the health care budget and allocating funds to republic, regional, district, and local medical resources. The government owned

all health care facilities and employed all health care workers.

In urban areas, a network of **polyclinics** (large, multiservice clinics) continues to represent the core of the health care system and serves most of the population. Until recently, each person was assigned to a particular polyclinic, but this requirement has been eliminated. About 30 percent of the population, including the police, railroad employees, university employees, and high-level government officials, has its own clinics and hospitals.

The key ambulatory care providers in rural areas are the midwife and the **feldsher**—a mid-level practitioner approximately equivalent to a physician's assistant (but with even more responsibility) who provides immunizations, primary care, normal childbirth, and minor surgery.

The hospital sector contains both general and specialized hospitals (e.g., maternity or emergency or infectious diseases), most of which are fairly small. Few contain modern medical technology, adequate pharmaceuticals, or high sanitary standards. Periodic reports of shortages of rubber gloves, surgical instruments, sterile needles, and other necessary supplies still occur. The emergency medical system—once the pride of the system—is in total disarray, with ambulances sometimes arriving half a day after being called.

Physicians enjoy some prestige in Russia, but they are not among the highest paid professionals. Salaries are approximately the same as those for starting teachers, but only 70 percent as much as those of industrial workers. This situation helps to explain the under-the-table payments from patients to physicians that have become common in order to secure more expedient care or additional services or even to have an operation performed or medication prescribed. It should be noted that the government does provide many physicians with certain fringe benefits (e.g., preferred apartments, vacation benefits, and access to better schools for their children) not accorded to others (Lassey, Lassey, and Jinks, 1997).

About 70 percent of all physicians in Russia are female, and most of these women work out of

the polyclinics. Male physicians are more likely to hold the more prestigious specialist positions in hospitals, academic positions, and most of the positions in the Ministry of Health. These patterns developed during the early 1930s at a time of an overall shortage of workers that was especially acute among physicians. Medicine was determined to be an area where women could adequately replace men. The Soviet government perceived many of these new female physicians (who had been nurses or even hospital orderlies) as being satisfied with a small paycheck and an occupation with little professional status.

### Accessibility of Health Care

According to the Russian constitution, free health care is guaranteed to all citizens (at the publicly funded polyclinics and hospitals), but only a small part of services are actually free. Services are provided on a first-come–first-served basis (often with long queues) and limited by the chronic shortage of supplies and equipment. The primary problem with the public system is that it continues to be underfunded. Russia spends about 6 percent of its GDP on health care, and this is not sufficient to elevate standards.

Laws passed in the early 1990s created a two-part government-run health insurance system. Workers were covered under one part (financed by a payroll tax), and nonworkers (e.g., the unemployed, retirees, and children) were covered in the second part, which is financed through the national government's budget. Thus far, however, the program has not worked as anticipated and has not generated the desired amount of funds (Barr and Field, 1996).

In recent years, a private system has begun to emerge beside the public system. Physicians are permitted to treat private as well as public patients, and patients with adequate personal resources may prefer to pay fee-for-service in order to get faster, more personalized, or more thorough care. A few pay-polyclinics have been started, and private health insurance is now available to help subsidize these costs. Many patients avoid both the public and

private systems by relying on informal access to physician-friends/relatives. Not surprisingly, this resource is most available to people in upper socioeconomic groups (Brown and Rusinova, 1997).

### Performance of the Health Care System

Russia today has substantial problems with its health care system and tremendously worrisome health indicators. Mortality rates are higher than in other industrialized countries but have gradually been declining since 1970. Life expectancy has actually decreased in some recent years, and infant mortality rates are two to three times higher than in Western countries. The death rate from heart disease is the highest in the developed world, and AIDS is increasing rapidly (now more than 1.2 million cases). Epidemics of diseases once thought to be under control in developed countries—for example, tuberculosis, hepatitis, typhoid, cholera, and diphtheria—are all on the rise and occasionally at epidemic levels. Drug-related health problems are up, while public sanitation, childhood immunizations, and health education programs are down. On average, life expectancy in Russia is about 13 years higher for women than men.

These conditions relate to the deterioration of the health care system but are traceable to a variety of other sources. Mark Field (1995) places the problem within the broad context of the collapse of the Soviet empire and the “systemic” breakdown of Russian society. He casts Russia as a country in a “post-war” mindset having experienced a humiliating national defeat. The deteriorating economic condition with high rates of inflation, political instability, and feelings of social isolation and alienation has contributed to a tearing of the social fabric.

Cockerham (1997) systematically analyzed the possible influence of Soviet health policy, social stress, and health-related lifestyles on the rise of adult mortality. He determined that poor health lifestyles—heavy alcohol consumption, increased consumption of tobacco, lack of exercise, and high-fat diets—are the main culprits in the upturn of deaths.

Marquez and colleagues (2007) have conducted analyses that show that the macro forces described by Field and the micro forces described by Cockerham are mutually reinforcing: Poor economic conditions negatively impact population health, and poor health is a barrier to economic growth. King, Hamm, and Stuckler (2009) have shown that rapid implementation of large-scale private market programs reduced available health care resources *and* created considerable psychological stress, which has contributed to poorer health and lifestyles, increased rates of heart disease and suicide, and decreased life expectancy.

### Recent Developments in Health Care

The leaders in Russia and in many of the countries that formed the Soviet Union intend to focus heavily on the application of free-market principles to the health care system. Many health care providers believe that the main problem with the system in the past—in addition to underfunding—has been its centrally controlled nature and now believe that the highest priority is to complete the transition to a new health care financing system. However, the focus thus far in Russia has been on the economic system, and little attention has been directed to reforming the health care system and acquiring the basic medical supplies and equipment needed for quality clinical services.

In 2009, Prime Minister Putin announced that the government would contribute \$10 billion to the health care system over a two-year period, that the medical insurance tax paid by employers would increase in order to add funding to the health care system, and that increased

privatization efforts would occur. However, deepening economic problems have forced austerity measures throughout the country, and health care funding has been reduced. Privatization efforts thus far seem to be exacerbating the problem.

### COMMON CHALLENGES TO HEALTH CARE SYSTEMS AROUND THE WORLD

Despite their profound differences, nations around the world are struggling with some of the same issues and questions with respect to their health care systems. Having briefly examined the health care systems of China, Russia, Canada, and Great Britain, the following emerge as common and very important issues that countries are dealing with now:

1. What is the optimal level of involvement of the national government in the health care system and in what ways should the government be involved?
2. Should there be both a public and private health care sector? What is the optimal relationship between the government, employers, insurers, and providers?
3. What is the optimal number of physicians within the system, and what should be the distribution between primary care physicians and specialists?
4. Given considerations of cost and equitable distribution, what is the optimal commitment that should be made to the incorporation of health care technologies?
5. How can health care cost increases most reasonably be controlled?

### SUMMARY

Studying health care systems around the world offers insights into policy alternatives and an enhanced ability to understand the forces that shape health care. While every health care system is unique, all are shaped by some configuration of environmental, situational-historical, cultural, and structural factors.

The four systems examined in detail in this chapter represent alternative ways of structuring a health care system. China is an agriculture-based country with a huge and very poor rural population. Recently, the government has abandoned the cooperative system based on community health workers—a system that was effective

in getting medical care to the people—in favor of a more privatized system. This change has created a system in disarray and one in which health care has become unobtainable for much of the rural population. Recently, China has committed to a significantly enhanced health care system.

Canada illustrates the national health insurance with private, regulated services model. Canada's health care system has undergone a significant transformation that has shifted more financial and managerial control to the provincial governments while maintaining a commitment to providing universal access to care. Health care personnel in Canada are not government employees, although the federal and provincial governments exercise significant influence on the conditions of medical practice. Health indicators are very positive, but difficult economic times in Canada have led to recent system cutbacks.

Great Britain illustrates the national health insurance with public, regulated services model. It guarantees universal access to health care through a system that is substantially publicly owned and run. Health indicators for the British people are very favorable, and there is considerable pride in the “National.” However, rapidly increasing costs have led to organizational changes and focused efforts on using competition and private market forces to control cost increases.

Russia, when it was part of the Soviet Union, illustrated the national health insurance state-run system (socialized medicine) model. Russians took much pride in the emphasis on preventive care and on the provision of free care for all citizens. However, the transition to a private market economy has been very difficult, the health care system like the general economy is in a desperate condition, and several health indicators remain major concerns.

## HEALTH ON THE INTERNET

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Throughout the text, we have discussed the World Health Organization and used data that it has collected. Learn more about the WHO by checking out its Web site at:

<http://who.int>.

How is the World Health Organization structured and governed? Where is the main office

located? What is the six-point WHO agenda? What role does WHO play in world public health? What does WHO have to say about reproductive health, about child health, about environmental health?

## DISCUSSION QUESTIONS

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1. Determine which of the four major influences on health care systems (physical environment, historical and situational events, cultural norms and values, and the structure of society) most impacted each of the four health care systems presented in detail in this chapter.
2. What are the common denominators in these four health care systems? How is each system unique?
3. Identify two major strengths and two important concerns about each of the four systems. Can you identify at least one feature in the health care system of each country that you would like to see incorporated in health reform in the United States and that you believe could be feasibly integrated (or could feasibly replace the pre-reform system)?

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