

An Introduction
to the **U.S.**
Health Care
System

**Sixth
Edition**

Steven Jonas ♦ Raymond L. Goldsteen ♦ Karen Goldsteen

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Over the course of an academic career that began in 1969, his research has focused on health care delivery systems analysis, preventive medicine and public health, and personal health and wellness. He has authored, coauthored, edited, and coedited more than 25 books and published more than 135 papers in scientific journals, as well as numerous articles in the popular literature. He is and has been a regular columnist for a number of scientific and lay publications in the health and health-related arenas and also publishes regularly on several Web magazines on the subject of politics. It was in the mid-1970s that, having been given the opportunity to do so by Dr. Ursula Springer, he created *Health Care Delivery in the United States*. He was actively involved with the first seven editions of that book. He is very proud that his name will continue to be associated down through time with that book, as it will be with this one, as it moves on to future editions under the able stewardship of the Drs. Goldsteen.

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Foreword

The book that follows is called *An Introduction to the U.S. Health Care System*. It now is in its sixth edition. My long-time friend and colleague Dr. Steven Jonas has been the coauthor, then author, of this fine introduction since its third edition. When speaking of him, I always like to note that in addition to holding degrees in medicine and health care management, Dr. Jonas is a person who, still a regular triathlete at age 70, himself leads a healthy life. For this edition, Dr. Jonas has brought on to the authorship the team of public health and health policy experts and his good friends, Drs. Raymond and Karen Goldsteen. They have done an admirable job of producing this edition with Dr. Jonas and will be taking over full responsibility for the book in the future.

What we know about the American health system is that we are getting exactly what we pay for. Every dollar of health expenditures is a dollar of health revenue for someone. This is why although observers say we don't have a "health system" in this country, even though it does not make sense to most observers, we do. Just try changing it! We spend enough to provide decent health care for all Americans, but not all Americans get decent health care. We don't lead healthy lives, going on 50 million of us don't have health insurance, health care costs too much for what we do get, and quality and service are uneven.

Don't blame Dr. Jonas or the Drs. Goldsteen for any of this. They have been voices in the wilderness preaching sense about both health and health services for many years. The answer isn't the government or for-profit private enterprise taking over everything. In this edition of *An Introduction to the U.S. Health Care System*, Jonas and the Goldsteens patiently explain what the evidence is for what is; the reader can come to his or her own conclusions about what works, what doesn't, and what should be done about it. They clearly, but briefly, explain the health characteristics of the American population; the health care delivery components (including personnel, institutions, commodities, and research); health economics and financing; management; quality assurance; and the role of government, voluntary agencies, and for-profit enterprises.

They identify the problems and issues facing the system and its beneficiaries, based on the evidence they have carefully marshaled for the reader. These

include too much spending for what we get in return; highly variable access by geography, economic status and other factors; lack of priority for public health and prevention; lack of full, or only partial, insurance coverage for many; competing goals beyond simply the provision of the best medical care for the nation's people as a whole; and uneven quality. Finally, they challenge the reader to make sense of the facts so generously provided, understand the evidence within an historical and international context, and come up with judgments on needed changes and how to go about making them.

This book before you offers an excellent short introduction to the U.S. health care system. I hope that after you master its contents you will be part of the solution to reforming health care in the United States rather than just standing by the wayside—perhaps even working to improve access, improve quality and contain cost.

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Editor-in-Chief, *Jonas-Kovner's Health Care Delivery
in the United States*, 8th edition
February 2007

Preface

This is the sixth edition of *An Introduction to the U.S. Health Care System*. It was my privilege, and indeed it was an honor, with the third edition to have succeeded the late Dr. Milton Roemer as the principal author of this book. In 1966, then a student at the Yale School of Public Health, I went to my first American Public Health Association Annual Meeting, held that year in Los Angeles. My mentor, the late Dr. E. Richard Weierman, had me in tow and introduced me to all the greats, the luminaries of the field that was then called “medical care.” None shone more brightly than Dr. Roemer. As I said in a letter to him after we came to a final agreement on doing the third edition of this book together, I felt like a kid who idolized the superstar baseball player and then grew up to play on the same team with him.

The third edition of *An Introduction* was a substantial revision of Dr. Roemer’s previous work, but it drew significantly on that work. The bulk of the writing in the fourth edition and even more so in the fifth edition is mine. Any of Dr. Roemer’s text from the second edition of *An Introduction* still remaining in this edition is used with the kind permission of the late Dr. Roemer, and with my thanks to him. Earlier versions of certain portions of the text written by me for this book appeared in parts that I wrote of the second, third, and, to a very limited extent, the fourth, editions of *Health Care Delivery in the United States*.¹

With the publication of this edition, the book is taking yet another turn in its authorship. I am delighted that my colleagues Drs. Raymond and Karen Goldstein, Director of and Associate Professor in, respectively, the Graduate

¹ *Health Care Delivery in the United States (HCDUS)* provides in-depth description and analysis of the subject, in contrast with the introductory approach that this book takes. I edited the first, second, and third editions of *HCDUS*, published in 1977, 1981, and 1986, respectively. The fourth and fifth editions were edited by my friend and colleague, Anthony Kovner, PhD, and published by Springer Publishing in 1990 and 1995, respectively. That text is used with the permission of the publisher and copyright holder, Springer Publishing. (The sixth and seventh editions of that book, coedited by Dr. Kovner and myself, were published in 1999 and 2002, respectively. The eighth edition, coedited by Dr. Kovner and Dr. James Knickman, was published in 2005.)

Program in Public Health here at Stony Brook University, have agreed to take over responsibility for the book for the foreseeable future. The Goldsteens bring to the book many years of research and practical experience in the fields of public health and health policy and management. My active participation in the book will end with the publication of this edition. Just as the third edition marked a transition from Dr. Roemer's work to mine, so does this edition mark a transition from my work to that of the Goldsteens. I look forward to seeing their own completion of this next transition with the publication of the seventh edition in several years.

This book describes the U.S. health care delivery system in broad outline. It does not go into great detail. It focuses on principles, basic structures, and important unsolved problems. It is not concerned with specifics of current legislative proposals and programs and how they are or are not being implemented. It takes primarily a qualitative rather than a quantitative approach. Thus, although it uses some numbers, it uses them lightly. It is referenced, but it does not have a profusion of citations. For a more comprehensive approach, readers are referred to the eighth edition of *Health Care Delivery in the United States*.

As were the first five editions of this book, this one is intended primarily for use in undergraduate courses on the U.S. health care delivery system, in graduate survey courses, for teaching the subject to medical students (who usually do not cover it in any depth, if they cover it at all), and for the practicing health professional who simply wants a relatively brief overview of the system.

Although *An Introduction* is not a policy book, Dr. Roemer, I, and the Goldsteens have elsewhere published a great deal on policy. Thus, this book has a political and philosophical point of view. Although it always attempts to be objective, it is not neutral. Its primary social value is that the principal purpose of the U.S. health care delivery system, taking precedence over any other purpose, should be to meet and serve the health care needs of the American people. If other purposes, such as the production of private profit, power, prestige, and political advantage, are achieved at all, they should very much take a back seat to the stated primary purpose.

At various points in the book, especially in chapters 1 and 9, proposals for U.S. health care delivery system policy and program changes, old and new, are described. Very occasionally, some are recommended. I hope that, after assimilating the factual material presented, you will be able to come to your own conclusions about what is to be done, if anything. I am certain that, if nothing else, you will agree with the majority of the American people that something must be done to reform both the structure and the functions of the system.

Chapter 1 provides an overview of the system. Chapter 2 presents the people who provide the care. Chapters 3 and 4 cover its primary inpatient and outpatient institutional forms. Chapter 5 covers governmental roles and functions. Financing is reviewed in chapter 6, and in chapter 7 the principles and

practices of quality assurance are presented. Chapter 8 is devoted to the subject of managed care, beginning with an examination of its historical forbear, pre-paid group medical practice. The history of and prospects for national health insurance and health care system reform in the United States are covered in chapter 9.

I am pleased to acknowledge the support of my wife, Mrs. Chezna Newman, for this project. For their assistance in preparation of the manuscript, the Goldsteens thank Judith Greene, MPH; Tad Ruckert, Jamie Romeiser, MPH; Bobbi Jo Rose, and Dmitri Coupet. Benjamin Goldsteen, MBA, provided substantial support in the preparation of Chapter 6. At Springer, we thank Jennifer Perillo, Acquisitions Editor, and the Senior Vice-President, Editorial, Sheri W. Sussman, for their enthusiastic support of this project and technical expertise in seeing it through, swiftly as it has turned out. Last, but never least, thanks to the woman without whom none of this work would ever have seen the light of day, Dr. Ursula Springer, Honorary Chair and Senior Consultant to Springer Publishing, and as well to Theodore Nardin, CEO and Publisher, who is shepherding it so well into the 21st century.

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February 2007

Abbreviations

AALL	— American Association for Labor Legislation
AAMC	— Association of American Medical Colleges
AHA	— American Hospital Association
ALOS	— Average Length of Stay
AMA	— American Medical Association
ANA	— American Nurses Association
ASTHO	— Association of State and Territorial Health Officials
CAT	— Computerized Axial Tomography
CCMC	— Committee on the Costs of Medical Care
CDC	— Centers for Disease Control and Prevention
CHC	— Community Health Center
CHSS	— Cooperative Health Statistics System
CME	— Continuing Medical Education
CMS	— Centers for Medicare and Medicaid Services
CPO	— Combined Provider Organization
DHHS	— Department of Health and Human Services
DO	— Doctor of Osteopathy
DOD	— Department of Defense
DRG	— Diagnosis-Related Group
DVA	— Department of Veterans Affairs
EAP	— Employee Assistance Program
ED	— Emergency Department
EMS	— Emergency Medical Service (or System)
EMT	— Emergency Medical Technician
EPA	— Environmental Protection Agency
EPO	— Exclusive Provider Organization
FDA	— Food and Drug Administration
GAO	— General Accounting Office
GPO	— Government Printing Office
GDP	— Gross Domestic Product
GMENAC	— Graduate Medical Education National Advisory Committee

GNP	—	Gross National Product
GPEP	—	General Professional Education of the Physician Panel
HCFA	—	Health Care Financing Administration
HIV	—	Human Immunodeficiency Virus
HMO	—	Health Maintenance Organization
HRSA	—	Health Resources and Services Administration
IDS	—	Integrated Delivery System
IPA	—	Individual or Independent Practice Association
IPO	—	Independent Practice Organization
JCAHO	—	Joint Commission on Accreditation of Healthcare Organizations
LCME	—	Liaison Committee on Medical Education
LPN	—	Licensed Practical Nurse
MC	—	Managed Care
MCH	—	Maternal and Child Health
MCO	—	Managed Care Organization
MEPS	—	Medical Expenditure Panel Survey
MHS	—	Marine Hospital Service
<i>MMWR</i>	—	<i>Morbidity and Mortality Weekly Report</i>
MRI	—	Magnetic Resonance Imaging
<i>MVSR</i>	—	<i>Monthly Vital Statistics Report</i>
NCHS	—	National Center for Health Statistics
NHANES	—	National Health and Nutrition Examination Survey
NHIS	—	National Health Interview Survey
NIH	—	National Institutes of Health
NIMH	—	National Institute of Mental Health
NIOSH	—	National Institute of Occupational Safety and Health
NLN	—	National League for Nursing
NP	—	Nurse Practitioner
OMB	—	Office of Management and Budget
OPD	—	Outpatient Department
OSHA	—	Occupational Safety and Health Administration
PA	—	Physician Assistant (or Associate)
PHO	—	Physician–Hospital Organization
PHS	—	Public Health Service
POS	—	Point of Service
PPGP	—	Prepaid Group Practice
PPO	—	Preferred Provider Organization
RBRVS	—	Resource-Based Relative Value System
RN	—	Registered Nurse
SAMSHA	—	Substance Abuse and Mental Health Services Administration
UR	—	Utilization Review

USDA	—	United States Department of Agriculture
USPHS	—	United States Public Health Service
VA	—	Veterans Administration
WHO	—	World Health Organization
WIC	—	Women, Infants, and Children (federal nutrition program)

Chapter 1

Introduction

A colleague once said of health maintenance organizations (HMOs), “When you’ve seen one HMO, you’ve seen one HMO.” The same could be said of the health care systems of the nations of the world. No two are exactly the same. However, there are certain features and goals that all health care systems share. Primarily, a health care system is organized to provide the diagnosis and treatment of health problems. Therefore, each nation or society defines what constitutes and signifies a health problem. Each has diagnostic and treatment theories, practices, and tools, where treatment can take many forms on a continuum from cure, to rehabilitation, to stabilization, to comfort care.

In the language of sociology and political science, all societies designate some persons or positions as legitimate providers of health care. These designated healers are empowered in their society to determine the causes of ill health and provide alleviation or cure. Some providers are designated as dominant, or vie with others for dominance. There is also a defined role for the recipients of health care services: for example, the “sick role” as defined by Parsons (1951), which posits the rights and obligations of sick persons in Western societies. And the sum of all the institutions and processes that support the work of diagnosis and healing can be called the health care system of that society. The system is organized around and for the legitimized healers.

However, we know that conditions that may be defined as health problems may differ from society to society. In the United States today, people who are obese are considered in poor health, and they are treated by everything from diet to bariatric surgery. In other societies, obesity is a desirable trait, emulated if possible by those who are thin. Diagnosis and treatment models may differ between societies. The social position, training, and authority of healers may differ. The organization of the system and the expected outcomes may differ among countries and among cultures.

Let us consider, as an example, traditional Chinese Medicine (Liu, 1988). It presents an entirely different perspective on health and health care than does the model originally developed in the Western European countries. Written records of origins of traditional Chinese medicine can be traced back further than 200 B.C.E. According to these teachings, in order to maintain a state of health the human body must maintain homeostasis, that is, an internal, bodily balance, between two inseparable and opposing forces of nature: yin and yang. Yin represents the cold, or passive, principle, whereas yang represents the hot, or active, principle. Any imbalance of these two forces can lead to a blockage of flow in the qi (vital energy) or in the blood, both of which run along interconnected channels in the body called meridians. When there is a disturbance in the energy flow, the appropriate type of treatment is selected to unblock the flow through the meridians: materia medica (herbology), acupuncture, bodywork (massage and manipulation), or health-benefiting exercises (exercising the body–mind connection). This is rather different from the Western approach to the understanding of disease, its diagnosis and treatment, and the maintenance of health.

The focus of this book is the U.S. health care system, with some comparisons to certain peer industrialized countries including Western European nations, Canada, Australia, and Japan. The United States shares with these nations (as well as many others around the globe) the same basic understanding of health and health care, including what constitutes a health problem; what are legitimate and effective diagnostic and treatment theories, methods, and tools; and the persons designated as healers, with physicians dominant. This system, which originated over a period of centuries in Western Europe, is generally referred to as “Western medicine.” It is also called allopathic medicine after the medical faction (allopaths) that gained dominance in the 19th century over groups including homeopaths, chiropractors, and osteopaths (Starr, 1982). Among the countries that utilize Western medicine as their primary means of dealing with the problems of health and disease, there are also certain similarities in the basic structures and organization used to deliver health care. The United States and its peer nations have similar economies and abilities to finance their health care systems. However, as we will discuss, there are very real differences between the United States and its peer nations relating to the methods of paying for health care, the equity and efficiency of health care as provided, and population health outcomes. These differences make the U.S. health care system unique, even among its peer nations.

HEALTH AND HEALTH CARE

What Is Health?

The most famous and influential definition of health is the one developed by the World Health Organization (WHO): “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

It was adopted in 1946 and has not been amended since 1948 (WHO, 1946). Many subsequent definitions have taken an equally broad view of health, including that of the International Epidemiological Association:

A state characterized by anatomical, physiological and psychological integrity, ability to perform personally valued family, work, and community roles; ability to deal with physical, biological, psychological and social stress; a feeling of well-being; and freedom from the risk of disease and untimely death.

Both definitions exemplify the tendency over the second half of the 20th century to enlarge the definition of health beyond morbidity, mortality, and disability to include sense of well-being, ability to adapt to change, and social functioning. However, in practice, the more limited view of health usually guides the provision of health services and efforts to improve health status. As Young (1998) writes: “Indeed, the WHO definition is ‘honored in repetition, rarely in application.’ Health may become so inclusive that virtually all human endeavors, including the pursuit of happiness, are considered within its domain” (p. 2).

Determinants of Health

Individual and population health are determined by many factors, only one of which is health care. It is generally accepted that the determinants of health include genetic inheritance, the physical environment—natural and built—and the social environment. The impact of these factors on health is mediated by an individual’s response to them, both behavioral and biologic. This concept is argued well by Evans and Stoddart (1994). Note that although we talk about the “determinants of health,” they are usually discussed in terms of how they are related to poor health. A brief overview of the determinants of health follows.

Genetic Inheritance

Our knowledge about the effects of genetic inheritance on health is growing rapidly. It is understood that, with few exceptions, disease processes are

determined both by environmental and by genetic factors. These often interact, and individuals with a particular set of genes may be either more or less likely, if exposed, to be at risk of developing a particular disease. These effects can be measured by showing that the relative risk of exposure to the environmental factor is significantly greater (or lesser) for the subgroup with the abnormal gene, than the risk in those without. (Pencheon, Guest, Melzer, & Gray, 2001, p. 544)

Physical Environment

Physical environment factors include health threats from exposure to toxins and unsafe conditions, particularly in occupational and residential settings. Many

occupations can expose workers to disease-causing substances, high risk of injury, and other physical risks. For example, the greatest health threats to U.S. farm workers are injuries from farm machinery and falls that result in sprains, strains, fractures, and abrasions (Myers, 2001). There are well-documented health threats to office workers from indoor air pollution, found by research beginning in the 1970s, including passive exposure to tobacco smoke, nitrogen dioxide from gas-fueled cooking stoves, formaldehyde exposure, “radon daughter” exposure, and other health problems encountered in sealed office buildings (Samet, Marbury, & Spengler, 1987; U.S. Environmental Protection Agency, 2006). In residential settings, exposure to pollutants from nearby industrial facilities, power plants, toxic waste sites, or a high volume of traffic presents hazards for many. In the United States, these threats are increasingly known to have a disproportionately heavy impact on low-income and minority communities (Centers for Disease Control and Prevention [CDC], 2003; Institute of Medicine, 1999).

Social Environment

Sociodemographic characteristics, particularly race, ethnicity, and socioeconomic status, are associated with significant variations in health status and risk for health problems. There is a large literature demonstrating the relationship between low socioeconomic status and poor health, including a gradient in which the higher the socioeconomic status, the better the health (e.g., Lynch & Kaplan, 2000; Williams, 1990).

Similarly, much research indicates that disparities in health status exist between racial and ethnic groups. Minority Americans including African Americans, Hispanic/Latinos, Native Americans, and Pacific Islanders generally have poorer health outcomes than do whites. The preventable and treatable conditions for which disparities have been shown include cardiovascular disease, diabetes, asthma, cancer, and HIV/AIDS (Department of Health and Human Services, 1998). Although race and ethnicity do not “explain” these disparities, they point to the need for explanations. Discrimination and its consequences are a recent focus for investigations attempting to explain racial and ethnic disparities (Krieger, 2000; Mays, 2007).

Nonphysical occupational factors also affect health. For example, a great deal of research demonstrates the relationship between poor health outcomes and the psychosocial work environment. The demand-control model is one well-known theory, hypothesizing that employees with the highest psychological demands and the lowest decision-making latitude are at the highest risk for poor health outcomes (Theorell, 2000). In addition, job loss and threat of job loss have a negative impact on health (Kasl & Jones, 2000).

Another large body of research on the social environment and health focuses on social integration, social networks, and social support (Berkman & Glass,

2000). For example, numerous studies over the past 20 years have found that people who are isolated or disengaged from others have a higher risk of premature death. Also, research has found that survival of cardiovascular disease events and stroke is higher among people with close ties to others, particularly emotional ties. Social relations have been found to predict compliance with medical care recommendations, adaptation to adverse life events such as death of a loved one or natural disaster, and coping with long-term difficulties such as caring for a dependent parent or a disabled child.

Health Behavior

The term *health behavior* can refer to behaviors that are beneficial to health. However, the term is generally used in the negative to refer to behaviors that harm health, including smoking, abusing alcohol or other substances, failing to use seat belts or other poor safety behaviors, making unhealthy food choices, and not engaging in adequate physical activity.

The effect of health behaviors on health status has been widely studied and found to be an important determinant of health. For example, most of the leading causes of death in the United States can be explained largely in terms of health behaviors that relate to them. Consider the 10 leading causes of death, as of 2003, as characterized by diagnosed disease or condition: diseases of the heart, malignant neoplasms, cerebrovascular diseases, chronic lower respiratory diseases, unintentional injuries (accidents), diabetes mellitus, influenza and pneumonia, Alzheimer's disease, nephritis, nephrotic syndrome and nephrosis, and septicemia. The next five leading causes of death were intentional self-harm (suicide), chronic liver disease and cirrhosis, essential hypertension and hypertensive renal disease, Parkinson's disease, and assault (homicide) (National Center for Health Statistics [NCHS], 2005, Table 31).

In one way or another, personal health behavior has an impact on the occurrence in any given individual of most of the diseases and conditions on this list. Further, looking at the cause of death in a different way, that is, by major contributing cause of the disease to which the death was attributed rather than by the disease itself, in the first study of its kind, McGinnis and Foege (1993) showed that, as of 1990, the leading factors were tobacco use, dietary patterns, sedentary lifestyle, alcohol consumption, microbial agents, toxic agents, firearms, sexual behavior, motor vehicles, and use of illicit drugs. As of 2002, the situation remained the same (McGinnis, Williams-Russo, & Knickman, 2002).

Even though there is widespread agreement that health is a response to the physical and social environments in which the individual lives and is influenced by the individual's genetic inheritance, health behaviors are often seen as the best target for health improvement efforts. For example, the emphasis of *Healthy People 2010* (U.S. Department of Health and Human Services, 2000), which

is the U.S. nationwide health promotion and disease prevention agenda, is on health behaviors and medical care (*Healthy People 2010: Environmental Quality*). The leading health indicators cited in *Healthy People 2010* are level of physical activity, overweight and obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, exposure to injury and violence, environmental quality, immunization status, and access to health care. Only the environmental quality indicator deals substantially with factors other than personal behavioral change or the availability of medical care.

Health Care as a Determinant of Health

The central focus of health care is to restore health or prevent exacerbation of health problems. If we argue that health is the product of multiple factors including genetic inheritance, the physical environment, and the social environment, as well as an individual's behavioral and biologic response to these factors, we see that health care has an impact late in the causal chain leading to disease, illness, and infirmity. Often by the time the individual interacts with the health care system, the determinants of health have had their impact on their health status, for better or worse. Thus, the need for health care may be seen as a failure to prevent the determinants of health from adversely affecting the individual patient.

Health care can be categorized in terms of its relationship to prevention—primary, secondary, and tertiary. Fos and Fine (2000) define these terms as follows: “Primary prevention is concerned with eliminating risk factors for a disease. Secondary prevention focuses on early detection and treatment of disease (subclinical and clinical). Tertiary prevention attempts to eliminate or moderate disability associated with advanced disease” (Fos & Fine, 2000, pp. 108–109).

Primary prevention intends to prevent the development of disease or injury before it occurs in individuals, and thus to reduce the incidence of disease in the population. Examples of primary prevention include the use of automobile seat belts, condom use, skin protection from ultraviolet light, and tobacco-use cessation programs. Secondary prevention is concerned with reducing the burden of existing disease after it has developed; early detection is emphasized. Secondary prevention activities are intended to identify the existence of disease early so that treatments that might not be as effective when applied later can be of benefit. Tertiary prevention focuses on the optimum treatment of clinically apparent, clearly identified disease so as to reduce the incidence of later complications to the greatest possible degree. In cases where disease has been associated with adverse effects, tertiary prevention involves rehabilitation and limitation of disability.

Health care is primarily concerned with secondary and tertiary prevention: early detection, diagnosis, and treatment of conditions that can be cured or limited in their consequences (secondary prevention); and (2) treatment of chronic diseases and other conditions to prevent exacerbation, stabilize conditions, and minimize future complications (tertiary prevention).

The health care system undoubtedly has its smallest impact on primary prevention, once again that group of interventions that focus on stopping disease, illness, and injury before they start. And as Evans and Stoddart (1994) argue, other than for immunization, the major focus of the health care system's primary prevention activities is on the behavioral determinants of health, rather than the physical and social environments:

The focus on individual risk factors and specific diseases has tended to lead not away from but back to the health care system itself. Interventions, particularly those addressing personal life-styles, are offered in the form of "provider counseling" for smoking cessation, seatbelt use, or dietary modification. These in turn are subsumed under a more general and rapidly growing set of interventions attempting to modify risk factors through transactions between clinicians and individual patients.

The "product line" of the health care system is thus extended to deal with a more broadly defined set of "diseases": unhealthy behaviors. The boundary becomes blurred between, e.g., heart disease as manifest in symptoms, or in elevated serum cholesterol measurements, or in excessive consumption of fats. All are "diseases" and represent a "need" for health care intervention. . . . The behavior of large and powerful organizations, or the effects of economic and social policies, public and private, [are] not brought under scrutiny. (pp. 43–44)

The success of any health care system is also affected by the other determinants of health. Genetic predisposition to breast cancer may limit the long-term success rates of cancer treatment. Continued exposure to toxins in the environment or at work may decrease the likelihood that the physician can stabilize an individual with allergies. Health behaviors, such as smoking or substance abuse, may stymie the best health care system when treating an individual with lung disease. The lack of support at home for changes in behaviors or adherence to medical regimens may undermine the ability of the health care system to treat an individual with diabetes successfully. Poverty, race, and ethnicity often limit access to health care, and therefore the ability of physicians to diagnose and treat health problems effectively (Smedley, Stith, & Nelson, 2003). We recognize that health, as well as health care, exist within a biological, physical, and social context, and all of these factors influence the health care system's probability of success.

HEALTH CARE SYSTEMS

Components of Health Care Systems

All health care systems have five major components: the facilities where health care is provided; the workforce that provides health care services; the providers of health care therapeutics such as, in Westernized countries, pharmaceuticals and medical equipment; the educational and research institutions that train the health care workforce and produce knowledge to improve health care services, and the financing mechanisms. In addition, some kind of organizational structure stands at the system's center, like the trunk of a tree. Besides this organizational structure, in any country's health care system there may be other loci of power and control. But where they exist, they are central to the system. They enable the system's components to interact and function to produce health services for the people.

Organization of Health Care Services

The five elements of the system—facilities, workforce, suppliers of therapeutics, knowledge, and money—are organized to produce health services. The forms and proportionate role of each differ among national systems. In the United States, as in most industrialized countries, there are five major types of health services sectors: the principal governmental health authorities, other agencies of government with health care functions, the private health care sector, non-health care commercial enterprises with health care functions, and voluntary health care agencies.

Health Care System Management

If institutions, workforce, and financing are to be brought together in various settings in order to provide health care, they must be managed. System management includes four major activities: administration, planning, regulation, and evaluation. Each is closely related to the others. It should be noted that these terms are not used consistently in the description and analysis of the operations and functions of all the health care system sectors. A given action may be termed deliberate planning in one, normal administration in a second, and official regulation in a third. Additionally, the generic term *management* is often used interchangeably with the technically more narrow term *administration*.

Health Care System Performance

Health care systems can be judged on the following criteria: (1) the quality of the health care provided; (2) the equity achieved in the provision of health care; and (3) the efficiency with which health care is provided.

U.S. HEALTH CARE SYSTEM

We now turn to a brief overview of the U.S. health care system. In many ways, the U.S. health care system is similar to that in countries where the allopathic medical model predominates. Yet it is also unique among those countries in several major ways. It is a truism that “when you’ve seen the U.S. health care system, you’ve seen the U.S. health care system.” There are many different perspectives from which we could begin an examination of this extremely complex health care system. One is to look at its major features in the context of those of the health care systems of the other major industrialized countries.

In the United States, there is no one central “trunk” of the “tree” mentioned earlier, but multiple ones. For the United States, think of a banyan tree, not an oak. For example, there is no national Ministry of Health or its equivalent playing a central role in either the operation or the financing of health services. In the other industrialized countries, even if a ministry does not operate the health care system directly, at the least it creates and supervises the structure within which the system functions, and it customarily runs the national organization that pays for health care at the personal, institutional, and community-wide levels.

In the United States, the health care system is highly decentralized and fragmented. Its role and function focus significantly on producing outcomes, such as power and profits for providers and payers, in addition to the provision of patient and community health services. Care is provided, and it is paid for. Top-quality health sciences research is carried out, and education is provided. There are certainly loci of power and control. But it is amazing how much money and time these other areas of power and control, such as the pharmaceutical and insurance industries, spend to make sure that the United States does not have a single national structure for paying for, much less operating, its health care system.

The United States has had a private fee-for-service system of medical practice that, certainly since the end of World War II, has produced, among other things, high incomes for many physicians. Although private medical practice is also common in most of the other industrialized countries, in the United States physician incomes have been significantly higher in relative terms than the incomes of most physicians in most other industrialized countries. Since the mid-1980s, however, the U.S. health care system has become a major venue for the generation of corporate profits from the direct provision of health care services (Himmelstein & Woolhandler, 2001). This, too, is a unique feature of the U.S. health care system.

Next we will consider briefly each of the five major operating components of the health care system: workforce, facilities, suppliers of therapeutics and equipment, knowledge and workforce production, and financing, each of which is treated in more detail in later chapters.

Components of the Health Care System

Health Care Workforce

In 2004, about 13.8 million people worked in the health care system (NCHS, 2005, Table 104). As of 2001, the largest groups were nurses, physicians, pharmacists, dentists, and physical therapists (NCHS, 2005, Table 108). The physicians, of whom there were 793,263 active in 2001 (up from 730,000 just 3 years before), by tradition and by license have been the most powerful, dominant group. In the mid-1990s, however, a major change in the locus of control over medical practice did take place, as a significant portion of it moved to the managed care companies. (The health care workforce is covered in chapter 2, and managed care in chapter 8.)

Health Care Facilities

Of the institutions housing and caring for patients in bed (inpatients), acute care hospitals are the most numerous. In 2003, there were about 5,764 acute care hospitals, with 965,256 beds (down from 5,810 and 983,628, respectively, just 3 years earlier; NCHS, 2005, Table 112). Hospitals are categorized in a variety of ways—for example, by ownership, size, function, and average length of patient stay.

There are three principal types of ownership: government (federal, state, and local); private, not-for-profit (also called voluntary); and private, for-profit (also called investor-owned or proprietary). There are four functional categories: general, special, rehabilitation and chronic disease, and psychiatric (Health Forum/American Hospital Association, 2001, p. A3). The American Hospital Association defines the *community hospital* as a nonfederal, short-term general or other special hospital. This is the predominant type of hospital in the United States. (The topic of hospitals is covered in detail in chapter 3.) Nursing homes and other long-term care institutions, of which there were 16,323, with 1,756,699 beds, in 2003 (NCHS, 2005, Table 116), plus long-term care services, are described briefly in chapter 3.

Various types of institutions and settings provide types of health care services other than inpatient. The most frequently used care is *ambulatory*, which is care provided to patients other than those in institutional beds. There were 1,106,067,000 ambulatory visits in 2004 (NCHS, 2006, Table 89). This represented 383 visits per 100 persons (age adjusted), up from 334 visits per 100 persons in 1995. About 82% of ambulatory care was delivered in private doctors' offices; other categories included hospital outpatient and emergency departments. This was essentially the same as in 1995.

Suppliers of Therapeutics

A variety of therapeutics including equipment are used in the health care system. Many kinds of equipment and supplies for the diagnosis and treatment of disease

are produced by the hospital and medical supply manufacturers. These items range from gauze pads, hospital furniture, sterile needles, laboratory chemicals, and anesthetic gases to diagnostic imaging and laboratory equipment, surgical instruments, orthopedic appliances, eyeglasses, hearing aids, and dental prostheses. The other major category of health commodity is pharmaceuticals (see Strongin, 2002). These elements, as important as they are, are not covered in any detail in this book.

The Production of Health Care Workforce and Knowledge

The scientific basis of every health care system is the fund of knowledge about health and disease, as well as the understanding of how to apply that knowledge to prevention and treatment through various interventions. A vast store of knowledge has been accumulated from the observations and experiences of past centuries. In our era, both the scientific knowledge base and our understanding of the best means for applying it to health maintenance and disease treatment are expanding at an ever-increasing rate through evidence-based medical research. The primary function of the biomedical research and medical technology systems is to continue this expansion of knowledge.

Health sciences knowledge and technology are put to use by the large number of people who work in the health care system in its myriad professions and occupations. The health sciences education system educates and trains these professionals and technicians. In health care, how someone carries out a particular set of tasks and the nature of his or her motivation and attitude are sometimes as critical to success as what it is that he or she actually does. “How” can be taught as well as “what” can be. Thus, the health sciences education system plays a role in determining the character of the health care system that goes well beyond the mere technical and scientific content of the educational programs. (Medical and nursing education are discussed briefly in chapter 2.)

Health Care Financing

In 2003, the United States spent over \$1.679 trillion on health services, close to 15.3% of the Gross Domestic Product (GDP) (U.S. Census Bureau, 2005, Tables 118, 119). Since the creation in 1965 of the federal Medicare program (see chapter 6), inflation in health care costs has usually outstripped general inflation by a factor of 2 to 3. Although during the 1990s the disparity between the two narrowed considerably (U.S. Census Bureau, 2005, Table 128), as the new millennium dawned, the relative rate of health services cost inflation began to grow again (Heffler et al., 2002).

Ultimately, all the money paid for health services comes from the general population. There are three major means by which money is transferred from consumers to providers for the delivery of health services: (1) via government

(in 2003, over 46% of total expenditures), (2) via “insurance”¹ and managed care companies (about 36% of the total), and (3) via direct out-of-pocket payment (about 14% of the total) (U.S. Census Bureau, 2005, Table 119). Government expenditures are for both services that it operates directly and services patients receive from independent providers. In this case, government is a “third-party payer” (counting the patient as the first party and the provider, whether an individual or an institution, as the second).

The two major payers in the private insurance sector are Blue Cross/Blue Shield (in most instances to date not-for-profit, although some of them are converting to for-profit status; Stocker, 1997; Thorpe & Knickman, 2002, p. 54) and the commercial (for-profit) companies. With the growth of for-profit managed care, the commercial companies are becoming more of a factor in the private insurance sector. The major recipients of funds in 2002 were the hospitals (33%), physicians (23%), the pharmaceutical and “other medical non-durables” sectors (13%), nursing homes (7%), dentists (5%), government public health services (3%), and government administration and net cost of private health insurance (7%) (U.S. Census Bureau, 2005, Table 120).

Most health care personnel, for example, nurses and other hospital employees, are paid by salary. Traditionally, private health care practitioners, such as physicians, dentists, chiropractors, and psychotherapists, have been paid on a fee-for-service basis. Under managed care, an increasing number of the latter group of health care professionals is receiving at least a portion of their incomes under a “capitation” payment system (see chapter 6). In the past, U.S. health care facilities for the most part operated either on a global budget or on some form of a cost-reimbursement basis. Again, under managed care, a growing number of institutions are receiving a “capitated” payment for each person, for which they agree to provide services as needed by that person. Financing mechanisms,

¹ The term *health insurance* is customarily applied to a system under which an insurance company is paid money (a premium) in advance for agreeing to pay for the costs or some proportion of them of a specified list of health services provided to a named beneficiary during a specified period of time. Under traditional health insurance, the care is not provided by the insurance company itself. Under managed care, either the “insurance” and the care are provided by the same company, or the insurer and provider are very closely connected, usually by contract.

The reason the word *insurance* is put in quotation marks above is that the customary use of the term *health insurance* is not in accord with the usual meaning of the word *insurance*. Customarily, the term describes an arrangement under which members of a group pay a premium to a financial entity to protect themselves against the financial consequences of the occurrence of a relatively rare event, such as premature death or the loss of a dwelling to fire. The use of health services over a lifetime, by the members of any covered group of beneficiaries, is not a rare event, however. Thus the term *insurance* is inappropriately used in the health care sector. What is going on, rather, is prepayment for at least some services that one can expect to use at some time in the future. Nevertheless, because the term *health insurance* has a customary meaning, defined in the first sentence of this footnote, even though it is at variance with the true meaning of *insurance* we will use it in a similar way.

expenditures, and methods of payment are covered in some detail in chapters 6 and 8.

Organization of Health Care Services

The components of a health care system are organized into health services programs. The forms and proportionate role of each program differ among national systems. In the United States, as in most industrialized countries, there are five major types of health services program sectors: the principal governmental health authorities, other agencies of government with health care functions, the private health care sector, non-health care commercial enterprises with health care functions, and voluntary health care agencies. It is within each of the health services programs in each sector that the five elements of the system—facilities, workforce, therapeutics, knowledge, and money—interact to produce health services.

Government in Health Services

In the United States, each of the three levels of government—federal, state, and local—directly operates certain health services programs. For example, there are the federal Department of Veterans Affairs hospital system, the state mental hospitals, and the local government public hospitals. Furthermore, by being the conduit for almost half of the money paid for health services, by collecting and disseminating health and health services information, by educating and training personnel directly, by providing financial support for many private health sciences educational institutions, and by being the largest player in the biomedical research arena, government is closely involved with virtually all health services programs.

The principal health agency of the U.S. federal government is the Department of Health and Human Services, headed by a Cabinet-level secretary. It is responsible for the federal Social Security program, the (diminishing) federal role in the state-run public assistance programs, and the main federal programs in biomedical research, regulation, financing, and public health. Many of the department's responsibilities are met by allocation of money and delegation of authority to the many other public and private entities throughout the nation that are concerned with health matters.

In each of the 50 states there is a major health agency that is part of state government. As at the federal level, in some states it is combined with agencies for social welfare or other functions. The administrative configuration and scope of functions of the state health care agencies are highly variable. The heads of these agencies are ordinarily appointed by the state's governor. Administratively, they are responsible entirely to the governor and not at all to the U.S. Department of Health and Human Services. Only insofar as certain standards

must be met as a condition for receipt of certain federal monies or in times of declared national emergency must the states accept national direction.

Similarly, below the level of state government, there are units of local government—counties, cities, and occasionally special health services districts—that also have major health care agencies. Most of these have a great deal of operational autonomy, although on certain health matters the local health department may carry out functions delegated by the state agency.

Finally, a variety of health-related functions are carried out by non-health care government agencies. For example, at the federal level, the Department of Labor administers the Occupational Safety and Health Administration, and the Department of Agriculture sets national nutrition standards in cooperation with the Department of Health and Human Services. At all three levels of government, environmental protection services are often provided by an independent agency, for example, the Environmental Protection Agency at the federal level. (For a closer look at government activities in health care, see chapters 5 and 6.)

Voluntary Agencies

In all countries there are nongovernmental agencies that play a role in the health care system. They are commonly known as *voluntary agencies*. In the United States, the group includes the American Heart Association, the Red Cross, and the Visiting Nurse Association. Voluntary health agencies have a wide variety of functions: to perform a service not rendered by other health care agencies, to pursue certain research or service objectives with special vigor and dedication, to advance or protect the interests of a certain population subgroup, to engage in public and political education and advocacy, and to carry out certain tasks at the behest of governmental agencies.

Like corporations, in order to stay in business voluntary agencies must take in more money than they spend. In a voluntary agency, however, the excess of income over expenses does not accrue to any individual(s) but rather is used to support the expansion of that agency's work. A voluntary agency is thus labeled "not-for-profit" or "nonprofit." The voluntary agency may be devoted exclusively to health purposes, or health services may be incidental to certain larger purposes, such as those of religious missions (domestic or foreign).

A subset of voluntary health care agencies is that comprising of the health professional organizations, for example, the American Medical Association (AMA), the American Nurses Association (ANA), the American College of Preventive Medicine (ACPM), the American Public Health Association (APHA), the American Hospital Association (AHA), the Association of American Medical Colleges (AAMC), and the American Medical Athletic Association

(AMAA). (In this nation of organizations, they are in fact legion.) They are financed by individual and institutional membership dues, journal subscriptions and advertising fees, and on occasion research grants and contracts. They are primarily concerned with advancing the perceived professional and economic interests of their members, both individual and institutional. They do this through, for example, public education, continuing professional education, litigation, legislative and political action, and, on occasion, trade union–like activity. They also may focus on advancing scientific knowledge and understanding, setting and maintaining professional standards, and educating the public about health and disease.

For-Profit Enterprises Providing Health Services

There are two distinct ways in which for-profit enterprises provide health services. There are for-profit health services providers and suppliers, and there are corporations that deliver health services to their employees as a benefit of employment.

For-Profit, or “Proprietary,” Health Service Enterprises. These enterprises are playing an increasingly significant role in the U.S. health care system. There are five subgroups of for-profit health services enterprises. First are those engaged in therapeutics production, as mentioned earlier. Most significant in terms of its impact on national health policy is the pharmaceutical industry (Strongin, 2002). Second are the commercial health insurance companies (see chapter 6), as well as those insurance companies providing professional liability (malpractice) coverage. Third are nursing homes for the aged and chronically ill, which have long been predominantly proprietary, with about 80% of their beds in units operated for profit. Fourth are the for-profit, proprietary, general hospitals, both those that are part of a managed care company and those that are independent. They house about 12% of the nonfederal, short-term hospital beds in the country (NCHS, 2004, Table 109). Fifth is the for-profit managed care sector (the MCOs), which has grown rapidly and is now the dominant nongovernmental actor on the health care system stage. It has developed from three different streams: the proprietary hospital sector, the commercial health insurance sector, and de novo (see chapter 8).

Employee Health Services. In the United States, in-plant employee health services are generally of circumscribed scope, except in large establishments (more than 500 workers). In smaller factories, they are usually limited to the provision of first aid by an industrial nurse or perhaps only a medicine chest for self-use. Large plants or mines may maintain a staff of physicians and nurses who perform replacement and periodic health examinations, treat any

work-related illnesses, disabilities, or injuries, and may engage in work-site wellness activities (O'Donnell & Harris, 1994). Enterprises in isolated locations, such as rural railroad junctions or lumber mills, may operate comprehensive medical care programs. Industrial firms are obligated by law to protect workers from accidents and occupational diseases, although enforcement, carried out by the federal Occupational Safety and Health Administration (OSHA) and in certain states designated state agencies, is often weak.

Private Professional Practice

The U.S. health care system traditionally has been dominated by private medical and other health professional practice, as noted earlier. As of the early 2000s, though system trends have begun changing certain of these relationships, office and in-hospital medical, dental, chiropractic, and medical and nonmedical psychotherapeutic care, pharmacy, optical, speech and audiology services, and the fitting of prosthetic appliances, among other services, are still furnished primarily by private practitioners.

It is especially noteworthy that, even when the financial support for health services in the United States has been collectivized, as in the various public and private health insurance programs and managed care, the direct provision of health services to patients has remained substantially in the markets created by individual practitioners. In private medical practice, for example, whether it is carried out in the physician's office or at a hospital, the service is rendered by an individual physician to a private patient of that physician. The responsible third-party payer, if any, pays a private fee to the provider. The "participation" of the insurance companies in the provision of services is limited to making sure that the payments for care, in whole or in part, for the individual patient are covered by the company's policy, and that the care given is "appropriate" as a covered item of care, in terms of the insurance company's prewritten guidelines.

Thus, true medical group practice or multidisciplinary team practice (see chapter 8) is still relatively rare in the United States. However, one of the intriguing aspects of managed care is that private practicing physicians who formerly contracted directly with their patients are now in one sense becoming collectivized as well. As previously noted, under managed care, the service contract is between the managed care company and the patient (most often through the patient's employer), not between the physician and the patient. The physician also contracts with the company (not the individual patient) to provide care for a set of patients.

Types of Health Services

The several components of the health care system work together to produce health services for individuals (personal health services) and population groups

(community health services).² To distinguish the personal from other parts of the system, what happens in the former is customarily called the “delivery of health services.” These services are usually further categorized as primary, secondary, or tertiary.

Primary Care

In functional terms, primary care is the care that most people need most of the time for most of their health and illness concerns, for patients who are not in institutional beds. Primary care includes a range of personal treatment and preventive measures. Common forms of personal preventive measures are the promotion of personal lifestyle/behavior change (e.g., becoming a regular exerciser), immunization, prenatal care, and periodic health examination for early disease detection. In industrialized countries, both treatment and preventive interventions are usually provided by a physician, although in some parts of the United States nurse practitioners and physician assistants also provide primary care (see chapter 3).

Most of the major causes of acute and chronic morbidity (sickness) are treated in the primary care setting. As of 1996 (the most recent year for which the following data were available at the time of writing), the major causes of acute and chronic morbidity were respiratory conditions, influenza, the “common cold,” injuries, other infective and parasitic diseases, hearing impairment, chronic sinusitis, arthritis, hypertension, heart conditions, orthopedic impairments (including low back pain), and asthma and hay fever (Adams, Hendershot, & Marano, 1999, Tables 1, 57).

Secondary and Tertiary Care

Secondary care (the most difficult level to define) includes services that are available in both community hospitals and physicians’ offices. Ideally, they are arranged through referral or consultation after a preliminary evaluation by a primary care practitioner. Secondary services include most surgical procedures and the common diagnostic and treatment interventions of such specialists as radiologists, cardiologists, and ophthalmologists.

Tertiary care consists of highly specialized diagnostic, therapeutic, and rehabilitative services, requiring staff and equipment “that transcend the capabilities

² A personal health service is one given directly to an individual—for example, treatment for an upper respiratory infection or the setting and casting of a fractured ankle. The recipient is almost invariably aware that he or she is receiving the service. A community health service is one provided to a group of people as a group. Each group member may be aware that he or she is receiving the service, for example, public health education on smoking cessation, but often the group member is unaware of the service received, for example, as in the provision of pure water supply and sanitary sewage disposal.

of the average community hospital” (Rogatz, 1970, p. 47). Such care, available largely at major medical centers, includes organ transplantation, open heart surgery, and other technically complex procedures, complex chemo- and radiotherapy for cancer, and the preservation of very low birth-weight premature infants.

In the United States, both secondary and tertiary health services are highly developed. That development has not always occurred either in response to a well-documented need or in a planned way so as to make for the most efficient use of scarce resources.

Care of Special Populations and Disorders

In all health care systems there are special programs providing primary, secondary, and tertiary care for certain population subgroups that are defined by age, gender, or occupation, as well as the management of certain specific health disorders in the population as a whole. In the United States, many of the special programs for defined population groups are provided by government, such as those for military personnel and dependents, military service veterans, and Native Americans. Other U.S. population subgroups for which special programs of health care have been created include railroad workers, migrant farm workers, certain industrial workers, schoolchildren, and college and university students.

Special programs can also be organized by type of illness. Mental illness is the most important health disorder for which special subsystems of health care are organized in the United States. Historically, hospitalization for mental illness took place primarily in special mental hospitals, primarily financed and operated by state governments. However, throughout the country the state hospital systems have shrunk drastically since the mid-1960s in both the number and the size of the hospitals, with little replacement by alternative services such as community mental health centers. This long-term development has had increasingly negative effects for both patients and the communities in which they live, as well as for the nonspecialized hospitals to which they are forced to turn when no other alternative is available (Haugh, 2002; Sharfstein, Stoline, & Koran, 2002; U.S. Department of Health and Human Services, 1999).

Ambulatory care for mental illness and emotional problems can be provided in private practice by psychiatrists, clinical psychologists, psychiatric social workers, and other psychotherapists. There are also several thousand public or voluntary mental health clinics serving primarily low-income patients. As noted, a national community mental health center system, for which federal legislation was enacted back in the 1960s to replace the state mental hospital system, has never been developed. Nevertheless, as also noted, the state mental

hospital system was sharply and steadily contracted over the last third of the 20th century.

Tuberculosis (TB), before the steep decline in its incidence and prevalence that occurred after the discovery at mid-20th century of antibiotics effective in treating it, also warranted a special network of clinics and hospitals for its detection and care. The current increase in the incidence of tuberculosis related to acquired immunodeficiency syndrome (AIDS), although a serious problem, is not of a magnitude that will lead to the reestablishment of anything like the old TB sanitarium system.

Health Care System Management

Dominant Manager: Changes in the Physician–Patient Relationship

Traditionally, as noted, American physicians control the bulk of the decision-making process concerning the allocation and use of health care system resources, whether through scheduling visits to themselves, or the ordering of diagnostic tests, hospital admissions, surgical interventions, the use of pharmaceuticals, or others. One of the major factors leading to the ever-rising costs of U.S. health care (U.S. Census Bureau, 2005, Table 118) has been this characteristic of independent physician decision making in resource allocation.

With the advent of managed care (see chapter 8), that pattern began to change (Dudley & Luft, 2001; Kassirer, 1995). Traditionally, whether or not the service was paid for by the patient or a third party other than the patient or physician, medical care in the United States has been provided primarily on the basis of a private, direct (usually unwritten) contract between physician and patient. Under managed care, a managed care organization (MCO), usually for-profit (Dudley & Luft, 2001; Fubini, 1996; Smits, 2002), contracts with patients, either directly or through their employers, to provide medical care. In the United States there is a clear distinction between managers and providers.

As MCOs increasingly became the primary contractor with patients for the provision of medical care, they took away from the physicians an increasing amount of the decision-making authority over how health care system resources are used and spent. This led to a degree of cost containment as utilization of certain resources declined (KPMG Peat Marwick, 1996). (By coincidence, the upward march of health care costs significantly in excess of the rise in the Consumer Price Index resumed in the early 2000s; Heffler et al., 2002, Table 2.) But it also led to a rising level of unhappiness and dissatisfaction, for somewhat different reasons, among both doctors and patients (“Can HMOs Help,” 1996; “Hillary,” 2001). We will return to these themes at various points in this book.

Administration

The administration of health services is a complex matter, itself the subject of many lengthy books (e.g., Shortell & Kaluzny, 2006). Although the principles of good administration and management apply equally, the many different types of health services organizations face different types of administrative problems.

For example, consider an administrative/management problem with which hospitals around the country are wrestling. Its resolution will require major changes in the way hospitals are structured. Those structural changes will in turn require major changes in the way people think and feel. The problem is that, with a few exceptions, hospitals are not used to mounting coordinated programs, but rather to delivering individual services, each component putting in its piece more or less as it judges to be best, and hoping that it fits. Medical staffs in hospitals in particular are often used to functioning independently, not as part of a team (“Hospital Stocks,” 2002; Sanderson, 1996/1997).

Many of the contradictions that are evident in the role of service, teaching, and research in hospitals will have to be resolved before these administrative problems can be resolved. Managed care puts special strains on the administration and management of hospitals, although the problems raised by the for-profit and not-for-profit varieties are rather different. (See discussions in chapters 3, 6, and 8.)

Planning

Planning may be defined as any deliberate action to determine unmet needs, set goals and objectives, design a program to meet them, and allocate resources for implementing the program in a systematic way. In this sense, health and health care planning in the United States and elsewhere can be said to have occurred with the establishment of the first hospital or the organization of the first governmental office of public health.

Even though virtually all health care entities engage in some form of health services planning at some time or other, as customarily used the terms *health care planning* and *health services planning* refer to the actions of a governmental or quasigovernmental agency in carrying out the functions just described. The results of the activity can be applied at any health care system level, from the local to the national.

The findings and decisions of health care planning agencies have only infrequently been backed by the force of law. Thus, health care planning in the United States has, for the most part, been very weak. Legally enforced planning has been largely confined to hospital construction. From the mid-1990s onward in many parts of the United States, there was no official planning function in place at all. With the exception of antitrust considerations, major decisions, even on such matters as medical school mergers, the growth of the managed

care approach to the delivery of health services, and the concomitant expansion of profit making in the health care field, for the most part have been left to the institutional/provider parties themselves. (See chapter 8.)

Government Regulation

Somewhat paradoxically, in the U.S. health care system, government regulation of certain aspects of the system, other than prospective system planning, is highly developed. However, U.S. government regulation is primarily a reactive, not a proactive, process. In the health care system it usually occurs, for example, after serious financial problems have developed or serious defects in quality have been encountered. There is also regulation in the public health sector, for example, in response to the undertaking by a corporate entity of an activity that threatens the health, safety, or comfort of some significant group of people in society.

Because of the highly decentralized, primarily private administrative structure and the general absence of planning, many problems and abuses have developed in the system over time. In response, federal, state, and local governments from time to time have imposed health care system regulation in an attempt both to correct existing deficiencies, inefficiencies, and inequities and to prevent the development of new problems in the future. Presently, government regulation of the health care system operates at a modest level. Should the public find that the operations of the free market cannot meet all of their expressed needs, that level could rise again in the future, that is, if the expected opposition of those entities being regulated could be overcome (Blumenthal, 2001; Geyman, 2003).

Evaluation

Program evaluation technique is highly developed in the United States (Horn, 1997, 2002; Institute of Medicine, 2000; Rossi & Freeman, 1993). A good deal of academic program evaluation is carried out. For a variety of public policy reasons, however, not the least of which is the absence of any national health care system or national health planning system, actual applied program evaluation is often not done in the United States. For example, from the mid-1990s onward, managed care development has moved swiftly ahead, with little applied evaluation of the effectiveness of the approach of its several different forms in meeting MCOs' stated goals and objectives, much less the objectively determined societal goals (Kodner, 1996). This may be changing with the development of "pay for performance," in which reimbursement rates are based on outcomes achieved. If the Medicare program adopts this strategy for improving health care outcomes, there will be a ripple effect on all providers, including managed care organizations (Rosenthal, Landon, Normand, Frank, & Epstein, 2006).

The Population Served

It can be argued that those who use the health care system have as great an influence on the system as those who provide health care. What are some of the major characteristics of the U.S. population—the aggregate user of health care—that influence the health care system?

In 2004, the population of the United States was about 294 million (U.S. Census Bureau, 2005, Table 2). Many characteristics of the U.S. population differentiate us from other industrialized countries with more homogenous populations, and these characteristics in turn contribute to shaping our health care system.

Unlike our peer countries such as Germany, the United Kingdom, the Scandinavian countries, and Japan, the United States has a more racially and ethnically diverse population. Sometimes, the lack of cultural competence among providers can lead to a decrease in the quality of care provided, thus contributing to the existing health disparities in minority populations in the United States (Betancourt, Green, Carrillo, & Park, 2005).

There is also broad range of social classes with large income differentials that are becoming wider over time (Institute of Medicine, 2002; Reich, 1998; Smedley et al., 2003; Thurow, 1995; “Who’s Winning,” 2001). Unfortunately, the United States has the greatest disparity between the rich and poor of all the Western European countries and Japan (*World Factbook*, 5 October 2006). These disparities add to the complexity and fragmentation of the U.S. health care system through effects such as differential care, payment issues, cost sharing, and access problems.

Age structure also affects the U.S. health care system. The population forecast for the year 2020 undoubtedly foreshadows major changes on the system, as the Baby Boomer generation ages into the elderly category. As a result, health care consumption patterns that have remained fairly constant over time will move more unevenly in the direction of elderly care. Physicians will need to spend more time providing services for the elderly, increasing from 32% of patient care hours in 2000 to 39% in 2020 (Bureau of Health Professions, 2003). Health care expenditures are also expected to increase because of the growing elderly population, putting greater pressures on Medicaid and Medicare to provide services for the increasingly large retired population.

Health Care System Performance

For all of its resources, workforce, facilities, skills, knowledge, money, and ability to do wondrous things to and with the human body, the U.S. health care system is plagued with problems. Some observers consider the situation a crisis. “Sudden worsening” is part of the definition of crisis, however, and most of the observed problems have been around for a long time. Thus, it can be fairly stated that the health care system is not in crisis. Rather, it has

serious problems, many of which are long-standing, but some of which, especially the increasing dominance of for-profit activities, are of recent origin—in particular, as Schiff and Young (2001, p. 401) put it, “the [modern] transformation of health care from a service into a business.” (See also Himmelstein & Woolhandler, 2001; Lasser, Himmelstein & Woolhandler, 2006; Woolhandler & Himmelstein, 2006.) Unfortunately, many of the problems, whether recent or long-standing, are at present, at least, seemingly intractable.

Health care systems performance is generally evaluated on three criteria: (1) quality of health care; (2) equity of health care; and (3) efficiency of health care (Aday, Begley, Lairson, & Balkrishnan, 2004; Aday, Begley, Lairson, & Slater, 1993). Health care performance may be assessed at the micro level—for physician practices, hospitals, or other health care settings—or at the macro level—for regions, states, and nations. We will introduce these concepts here, and discuss them in more detail later in the book.

Quality of Health Care

Beginning with Donabedian and inspired by his work (1980–1985), there has been increasing effort to assess the quality of health care systematically in order to bring about continuous quality improvement. Health care outcomes and their relationship to structure and process are of major importance in health care today (e.g., Institute of Medicine, 2001). In general terms, this kind of quality assessment is performed through the conduct of research that compares the clinical outcomes of providers, institutions, treatments, and procedures, and then translates these research findings into clinical guidelines. In chapter 7 we will discuss clinical outcomes research and evidence-based medicine, as well as the organizations that have been in the forefront of this movement to improve the quality of health care.

In addition, we will briefly discuss the population health orientation and its indicators of health care quality. A health care system can be evaluated on the ultimate health outcome measure, that is, the health status of the population it serves. As David Kindig (1997) wrote:

Despite the massive resources it consumes, the U.S. health care system remains under stress. While we are global leaders in technical accomplishments in medicine, the amount of health we achieve per dollar invested is far from optimal. . . . [W]e will not maximize the amount of health we achieve until a measure of health outcomes becomes the purchasing standard for both the private and public sectors. (p. 1)

Equity of Health Care

The distribution of and access to health services for the American people are significantly uneven (Institute of Medicine, 2002; Wennberg et al., 1996, 1999). For many persons who live in the right geographic location, have the right

health care cost coverage package, and have a disease or condition on which American medicine has chosen to focus, American medicine is, as it is said, “the best in the world.” But for the person who lives in the wrong place (Wennberg et al., 1996, 1999), has no health care cost coverage (Schroeder, 2001), is, for example, someone other than a young White male (Institute of Medicine, 2002, Marmot, 2001; Santana, 2002; Stolberg, 2002), and, worse yet, has a disease or condition in which American medicine has limited interest, that may well not be true. Such a person may be in serious trouble in terms of both his or her health care and his or her health.

Efficiency of Health Care

Efficiency is either allocative (attaining the most valued mix of health care services) or production efficiency (producing a given level of health care services at minimum cost). An allocative efficiency issue is how much to invest in preventive versus curative medical services, whereas a production efficiency issue might concern whether and when to substitute relatively low-cost nurses for physicians in the provision of medical care. At the micro level, efficiency is assessed using: (1) production functions; and (2) cost-effectiveness, cost-benefit, and related cost-utility analysis. At the macro level, efficiency analysis is based on comparisons of the performance of health care systems (Aday et al., 2004). On many studies of macro-efficiency, the U.S. health care system is less efficient than those of other nations, spending more, providing fewer basic resources per capita, and having worse population health outcomes such as life expectancy.

FUTURE OF THE U.S. HEALTH CARE SYSTEM

History of Change

As far back as 1932, the findings of the first comprehensive study of health care in the United States were summarized in these terms (Committee on the Costs of Medical Care [CCMC], 1970/1932, p. 2):

The problem of providing satisfactory medical service to all the people of the United States at costs which they can meet is a pressing one. At the present time, many persons do not receive service which is adequate either in quantity or quality, and the costs of service are inequably distributed. The result is a tremendous amount of preventable physical pain and mental anguish, needless deaths, economic inefficiency, and social waste. Furthermore, these conditions are . . . largely unnecessary. The United States has the economic resources, the organizing ability, and the technical experience to solve this problem.

Reports have been issued ever since; changes have been called for, and some have been made—for example, the enactment of the Medicare and Medicaid legislation to insure health care for older Americans and those without means. These calls for change have set the stage for our present situation as well as the future.

The Present Situation

Today, the problem list for the financing, distribution, and delivery of services has changed little since the time of the publication of the CCMC final report (except that the costs are incredibly higher). Indeed, certain problems considered important by the Committee on the Costs of Medical Care that are still pressing today originated in our country and those of our European forebears well before the CCMC's time, in the 17th, 18th, and 19th centuries (Freyman, 1974, pp. 3–97). This is the case even though the advances in the science and technology of medicine have gone well beyond the wildest dreams of anyone giving thought to possibilities in 1932.

Future Directions

Although this book describes the dominant health care system in the United States today, changes are occurring rapidly. Other health care models, including other models originating in Western countries, such as chiropractic, and those originating in other parts of the world, such as Chinese medicine, are increasingly accepted. These are being developed as parallel systems as well as incorporated into the allopathic health care system. New financing and organizational models and, along with these, new paradigms of dominance and legitimacy are coming about. As a result, it is not clear what the U.S. health care system will look like even 10 years from now. Some of the major changes occurring now will be discussed in the final chapter.

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