HEALTH CARE IN THE UNITED STATES

ORGANIZATION, MANAGEMENT, AND POLICY

HOWARD P. GREENWALD

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To Romalee A. Davis, MD—
Seeker, healer, teacher

PREFACE

The chapters to follow have been written as a textbook in health care management and policy. The book may serve as an introduction to problems and issues in U.S. health care for people entering related professional fields. It is also intended for use by people already experienced in a particular aspect of management or policy for attaining perspective on the system as a whole. The book will have value far beyond the classroom. Every day, large numbers of Americans become newly interested in health care management and policy for a variety of reasons. The chapters to follow constitute an introductory resource for citizens, clinicians, and officials with an emerging interest in managing or changing the system.

For no reader will the material presented here be entirely new. Without exception, everyone reading these pages will have experienced health care as a consumer. It is hoped that this book will help readers of any background see their experience as part of a large, complex, and ever-changing system. An improved view of where the reader's experience fits within this firmament will enable him to better render direct service, manage human and material resources, influence policy, and utilize health care for his own needs.

Many observations and comments in this book are based on the U.S. health care system as it was in the twenty-first century's first decade. At the end of this decade, action by the U.S. Congress envisaged sweeping changes. But even these broad measures did not address many of the basic challenges facing managers, policymakers, and clinicians. Earlier innovations hailed as system-changing in fact have had limited overall impact. The U.S. health care system has long been and remains predominantly private, decentralized, and employer-financed. These as well as certain essential characteristics of health care that prevail worldwide suggest that problems already encountered will prevail well into the future.

Present-day challenges will persist, no matter what role government plays in the U.S. health care system in the years to come or how much uniformity and regularization will be introduced into health care financing and professional practice. Throughout the world, health care is highly personal in nature, depended on for survival by many, widely viewed as a "right," and steadily increasing in cost. These basic features of health care ensure continuing controversy over access to care, quality of services, responsibility for payment, and reliability of outcomes.

For generations, critics have characterized issues facing health care in the United States as unique. Yet similar challenges occur in many other countries. The wealthy democracies of Western Europe, which all have national health plans of some kind, experience socioeconomic disparities in health and life expectancy akin those observed in the United States. Sweden, a country as strongly committed to the welfare state

as any on the globe, still reports overcrowding and delay in its hospital emergency facilities, just as we see in the United States. The health care system in Canada, to which Americans have looked for generations as a model for the United States, today faces severe challenges due to increasing health care costs and deteriorating facilities and services. The problems and issues covered in this book, then, are likely to remain important in the United States for many generations.

This book is intended to help readers see their own specialized area of the health care system in the perspective of the whole. It covers a broad spectrum of health care–related subject matter, including such diverse areas as epidemiology, health behavior, the health care labor force, hospitals and ambulatory care organizations, and health care finance. The chapters to follow may not necessarily provide information that is new to specialists in the relevant area. But even for experts in a particular dimension of health care, the book will contribute to a comprehensive understanding of the system and its issues.

Within practical limits, this book attempts to be definitive and comprehensive—and to be definitive in this case requires a highly factual approach to each area addressed. Many unsupported assertions characterize management thinking and policy debate. The field of health services research, however, has produced a tremendous volume of relevant, high-quality studies. This book makes extensive use of such research.

The text attempts to be comprehensive in addressing the essential tasks of the health care system, the features of each system component, and issues relevant to the future. Truly comprehensive treatment of the U.S. health care system, however, would require many more pages than those in this volume. The more closely one examines any dimension of health care, the more complex and multifaceted it reveals itself to be.

Rather than attempting to be exhaustive, the book concentrates on matters with the broadest implications for the delivery of health services. Consistent with this approach, hospitals receive more attention than long-term care organizations or public health departments. The social and economic issues arising in long-term care are by no means unimportant. But services delivered in hospitals predominate as drivers of health care costs. Similarly, the labor supply and geographic distribution of physicians receive more attention than the supply and distribution of nurses. None would dispute the importance of the nursing profession. Physicians, however, exercise more control over the delivery process, and their decisions crucially affect health care utilization and costs.

This book is divided into three parts. Part One, The System and Its Tasks, provides an overview of the U.S. health care system's components and challenges. Chapter One addresses the characteristics and dilemmas of health care as experienced by human beings everywhere and across historical eras. The chapter points out that although health care in the United States is poorly integrated and decentralized, it is indeed a system, each of whose components is interdependent with several others. Chapter Two identifies characteristics of the U.S. health care system that distinguish it from other countries, explains why these features exist, and raises questions about the type and degree of change acceptable to U.S. citizens. Chapter Three presents a very brief summary of the field of epidemiology and the health issues that lead Americans to

utilize health services. Chapter Four identifies patterns of human behavior, including individual acceptance of risks to health, that help determine both need for and utilization of health care.

Part Two addresses actual operations of the system. Chapter Five highlights the importance of formal organizations—such as ambulatory care practices, hospitals, and managed care firms—as the system's actual operating components. Chapter Six addresses the supply, demand, distribution, and management of health professionals, placing special emphasis on physicians, nurses, and health care administrators. Chapter Seven covers the ways in which Americans pay for their health care and the implications of insurance for consumer behavior and costs. Chapter Eight treats research as a sector of the health care industry with special implications for the future of health care. This chapter covers basic questions regarding the validity, usefulness, and potential misuse of research in the health field. It highlights the challenge of making decisions that are crucial for health care efficacy and cost on the basis of research findings.

Part Three examines approaches Americans have taken to improving the system, its output, and the means that will be required to put innovations into effect. Chapter Nine covers the effects of key innovations that have occurred in U.S. health care delivery over the past generation and assesses the impact of these measures. Chapter Ten addresses the contributions that prevention can make to the well-being of Americans and the control of health care costs. Chapter Eleven concentrates on government and the political process as potential agents of progress or, when misused, causes of stagnation and backsliding.

Finally, Chapter Twelve examines alternative routes that Americans have considered toward an improved health care system. This chapter pays special attention to the legislation passed by Congress at the end of the 21st century's first decade. The reader is encouraged to recall that past innovations in the U.S. health care system have neither proven uniformly successful nor provided comprehensive solutions to the system's problems. Chapter 12 concludes by highlighting past controversies that are likely to continue into the future and new ones that will almost certainly arise.

Each chapter ends with a series of discussion questions. These questions focus not on review of principles or facts appearing in the chapters, but as means of encouraging the reader to develop her own synthesis of the facts and principles. The questions are intended to serve as the basis for personal reflection and group discussion.

TO THE STUDENT

Everyone using this textbook should consider it as one of many resources that can promote an understanding the U.S. health care system. Students especially should note that any observer of this system, its operations, and its components will inevitably apply his individual experience and point of view. For this reason, students should feel encouraged to challenge material they encounter in these pages. Everyone has ample opportunity to find updated facts and competing points of view in the many specialized journals concerning health care available today and from high-quality mass media

sources. Most important, students should form their own opinions and outlooks in conversation with peers.

TO THE INSTRUCTOR

Several resources will be available to instructors as companions to this textbook. These include, first, an Instructor's Manual, containing PowerPoint slides, lecture outlines, and suggested topics for class discussion. Instructors are encouraged to select materials in the Instructor's Manual that best support their own outlook on the health care field and the topics that they believe deserve the greatest emphasis.

No textbook can anticipate the character and impact of major changes at the policy level. This textbook addresses challenges and choices regarding the U.S. health care system likely to remain important far into the future. Unanticipated developments, however, are sure to occur, driven either by policy or technology.

THE AUTHOR

Howard P. Greenwald is professor of management and policy at the University of Southern California School of Policy, Planning, and Development and clinical professor at the University of Washington School of Public Health. He is a specialist in program evaluation, organizational performance, health services research, and chronic disease epidemiology. He holds a PhD in sociology from the University of California at Berkeley. He has served as a faculty member at the University of Chicago Graduate School of Business, research scientist at Battelle Memorial Institute, chairman of the Network for Healthcare Management, director of the Health Services Administration Program at the University of Southern California, and commissioner on the Accrediting Commission for Education in Health Services Administration. His current research activities include studies of innovation and effectiveness in formal organizations, the political process of policy making, long-term quality of life among cancer survivors, and outcomes of multisite interventions designed to improve the quality of life in communities. In addition to *Health Care in the United States: Organization, Management, and Policy*, he has written four other books, the most recent of which are *Organizations: Management Without Control* (Sage, 2008) and *Health For All: Making Community Collaboration Work* (Health Administration Press, 2002), with William L. Beery. He is author alone or in collaboration of approximately fifty peer-reviewed articles in journals such as the *American Journal of Evaluation*, *Journal of Clinical Epidemiology*, *American Journal of Public Health*, *Journal of Women's Health*, and *Milbank Quarterly*. His opinion pieces have appeared in the *New York Times*, the *Wall Street Journal*, and the *Sacramento Bee*.

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PART

1

THE SYSTEM AND ITS TASKS

Health care serves a basic human need and for this reason is one of the oldest specialized human functions. Perhaps even before the recording of history, specialized personnel in the human group acquired some degree of healing art. Imperfect understanding, and perhaps even magic and mystery, characterize healing from the layperson's point of view. Still today, the layperson views health care with varying degrees of awe, uncertainty, and suspicion. As experienced by many in the modern world, the outcomes of health care are uncertain, the cost unjustifiable, and the practitioners aloof.

The U.S. health care system shares many of the essential characteristics of health care throughout history and across the globe. But the U.S. system is unusual in the degree to which it is privately owned and operated and lacking in direction by a central authority or agency. Values central to the American mind such as belief in the private

sector have helped maintain these characteristics. A belief among Americans in the right to choice and maximization of the things life has to offer also helps maintain the system as it is.

The health care system's basic tasks are to prevent and remedy illness and injury. Chronic disease represents today's principal threat to health. Diseases of this nature tend to have multiple causes, both behavioral and environmental. They require close collaboration between clinician and client for control. Because of the need for repeated treatment, such diseases tend to be expensive to care for. Recently, infectious diseases were relegated to historical accounts of epidemics and plagues. But the rise of serious pandemics such as human immunodeficiency virus (HIV) and H1N1 influenza have given infectious disease renewed currency.

Utilization of health services, and to some extent health itself, is an outcome of human behavior. Individual human beings vary significantly in the taking of health risks. Similarly, people differ in their perceptions and acceptance of illness. Demographic factors strongly influence the tendency of people to seek health care even when they perceive the need. The health care system's tasks include development of cultural competence and health literacy as means of providing quality care.

CHAPTER 1

UNDERSTANDING HEALTH CARE

LEARNING OBJECTIVES

- To obtain an overview of health care as a concern in the U.S. and worldwide
- To appreciate the challenges experienced by health care consumers and providers
- To identify objectives and goals for heath care
- To highlight the importance of public trust and professional ethics
- To frame health care issues within three perspectives: a systems approach, critical thinking, and the public interest

HEALTH CARE AS A NATIONAL CONCERN

Health and health care are subjects in which everyone has an interest. When young mothers get together, talk soon turns to the health of their children. In search of health, men and women of all ages work out at the gym. Among elders, conversation inevitably involves aches, pains, and the merits and shortcomings of their physicians. Health and health care periodically become major election issues. But acute concern for health, health care, and associated costs are only a step away from each individual, who, if he has no direct concerns, almost always has a friend, relative, or neighbor in need of care.

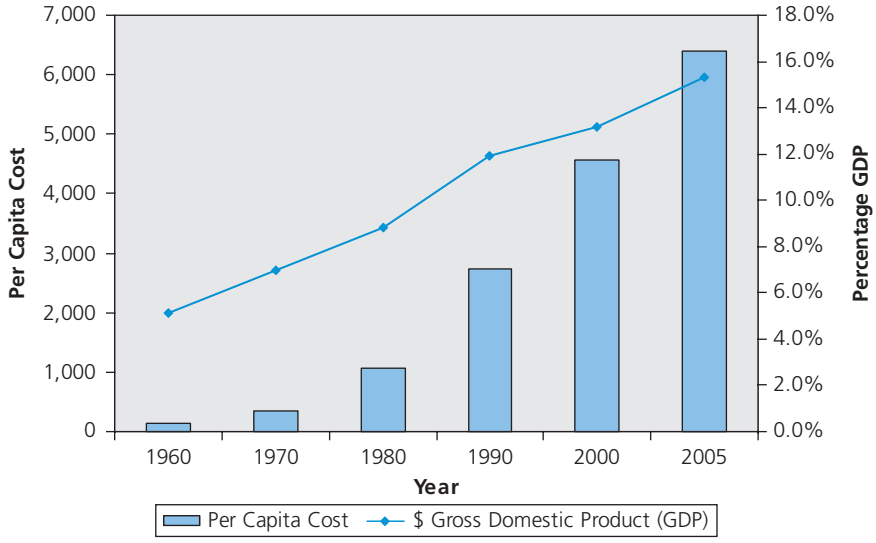
Health care in the United States is arguably the best in the world, and much evidence suggests that the health of Americans is today the best it has ever been. Only a few examples can convince most people that this is true. Children with leukemia, whose illness amounted to a death sentence only a generation ago, now often survive to live normal lives. Elders who at one time would have been confined to wheelchairs and nursing homes now live active, independent lives thanks to procedures such as cataract surgery and hip transplants. Effective drugs and widely available surgery are chipping away at heart disease, for generations America's leading cause of death. AIDS is now often controllable, whereas at a time still well remembered it invariably led to a miserable death. Life expectancy in the United States has steadily increased, from 69.6 years in 1955 to 75.8 years in 1995, and to 77.9 years in 2005.[1]

Health care, however, has become a major source of dissatisfaction and controversy in the United States. A challenge affecting the United States as a whole, and Americans as individuals, is that of cost. As Figure 1.1 indicates, the cost of health care increased markedly during the late twentieth and early twenty-first centuries. Despite public policy aimed at controlling costs, the upward trend appeared to be accelerating as the twenty-first century began.

Figure 1.1 takes on added significance when viewed alongside changes in the health insurance available to the American public. Most of the dollars paid for health care come from health insurance of some kind. As recently as the late 1970s, large numbers of Americans paid nothing out of pocket for their health care. Hardly anyone today enjoys such generosity. Now, both private and public insurers continuously seek ways to reduce insurance coverage for individuals. Not only are health care costs higher today, but Americans are more likely to have to pay them out of pocket.

The cost of health care has raised significant concern on many levels. Employers complain that high employee health care costs have strangled international competitiveness. Recipients of health care feel increasingly uncomfortable about increases in out-of-pocket expenses. Some researchers have reported that health care costs contribute to a majority of personal bankruptcies in the United States.[2] Programs that provide health care to the elderly and poor consumed a percentage of the federal budget far in excess of defense. Because of their responsibility to provide health care to the poor under Medicaid, individual states have experienced severe fiscal stress, forcing some to cut infrastructure maintenance and education to meet their health care obligations.[3]

FIGURE 1.1 *Growth in the cost of health care in the United States, 1960–2005*



Source: National Center for Health Statistics. 2009. *Health, United States, 2008.* Table 123. Hyattsville, MD: National Center for Health Statistics.

Often, the text to follow uses the term *consumer* in preference to *patient*, the traditional designation of a seeker or user of health services. The term **consumer** recognize the health care user as someone capable of making free choices and exercising economic power. Traditionally, the term **patient** has signified a suffering, dependent individual.

The economic downturns of the early twenty-first century sharpened the issue of health care costs for many individual Americans. At that time, a majority of Americans received health insurance through their employers or those of their parents or spouses. But by 2009 it was estimated that 3.7 million working-age Americans had lost their health care coverage as a result of unemployment.[4] Millions more, though still employed, worried that they might lose their health insurance if the economy continued to slide.

Despite the resources allocated to health care in the United States, observers have expressed doubts regarding the value Americans get in return. Although the United States ranks highest in the world in per capita expenditures, it has an infant mortality rate higher than most other wealthy industrialized countries. Singapore, the top-ranked country in preventing infant mortality, recorded two infant deaths per 1,000 live births in 2004; the United States recorded 6.8.[5] In 2003, the United States ranked sixteenth in life expectancy worldwide.[6]

Concern over the quality of services received by the public is growing. A great deal of attention has focused on patient safety. A highly influential 1999 report by the Institute of Medicine estimated that between 44,000 and 98,000 Americans die each

year due to preventable medical error. According to the report, more people die from such error than from motor vehicle accidents, breast cancer, or AIDS. The authors estimated total national costs (lost income, lost household production, disability, and health care costs) of preventable adverse events (medical errors resulting in injury) to be between $17 billion and $29 billion. The expense of additional health care required by the victims of medical error accounted for over half the total. In the opinion of the report's authors, health care is a decade or more behind other high-risk industries (such as aviation) in its attention to ensuring basic safety. Medication errors alone are estimated to account for over seven thousand deaths annually.[7]

The quality debate has also addressed the basic efficacy of medical procedures.[8] Strong scientific substantiation is lacking for many interventions widely used in medicine today. Consequently, patients do not always receive the most effective treatments available and may receive treatments that are ineffective or whose adverse side effects outweigh beneficial ones. Awareness of this problem has led to a movement called *evidence-based medicine,* whose goal is to develop standards of care validated through both new research and synthesis of existing studies.

Great variability has been reported in both the cost and content of medical care across geographical areas, suggesting the absence of accepted standards of care. As recently as the late 1990s researchers reported that appropriate application of scientific evidence in practice occurred only 54 percent of the time.[9] According to one observer, "most clinicians' practices do not reflect the principles of evidence-based medicine but rather . . . tradition, their most recent experience, what they learned years ago in medical school or what they have heard from their friends."[10]

Recently, health care in the United States has come under increasing criticism owing to issues of social justice. The health care system serves the nation unevenly. Inequality prevails among racial groups and economic strata in use of health services, health status, and life expectancy. People who earn high incomes, have advanced education, and are nonminorities tend to use more services, have better health status, and live longer than their less advantaged counterparts.

Table 1.1 provides an illustration of this disparity. Male African Americans have a higher mortality rate than men of any race. Women in all racial groups have lower death rates than men. But within both gender categories, people who have not graduated from high school (less than twelve years of education) have death rates roughly three times that of people with one or more years of college (thirteen or more years of education).

The differences in death rates apparent in Table 1.1 are mirrored by other indicators of well-being (or lack thereof). Similar disparities are apparent in infant mortality, likelihood of death in diseases such as cancer, and disability due to illness. Although researchers and social critics have increased their attention to these facts, public programs in the United States have long made major commitments to care for the disadvantaged. The disparities evident in Table 1.1 suggest that the billions of government and private dollars allocated to care for the poor have not yet produced the desired results.

TABLE 1.1 **Age-adjusted deaths per 100,000 U.S. residents, by gender, race, and education**

	Gender		
	Male	**Female**	**Both**
All	994.3	706.2	832.7
Race			
African American	1,319.1	885.6	1,065.9
Caucasian[a]	984.0	702.1	826.1
Asian	562.7	392.7	465.7
Latino or Hispanic	748.1	515.8	621.2
Native American	797.0	592.1	685.0
Years of education			
Less than 12	826.8	496.8	669.9
12	650.9	349.4	490.9
13 or more	252.5	171.0	211.7

[a]Excluding Latino or Hispanic.

Source: National Center for Health Statistics. 2006. *Health, United States, 2005*. Tables 29, 34, and 35. Hyattsville, MD: National Center for Health Statistics.

The issues raised here merit the serious concern of Americans. The paradox of abundant resources alongside unmet needs in the United States is striking. Basic problems in health care do not result simply from conditions that prevail in the United States. Many challenges and dilemmas regarding the objectives and delivery of health care are universal and timeless. Although many of these challenges may never be resolved, effective management and policy can do much to ensure greater benefit from health care for individuals and society as a whole.

HEALTH CARE OBJECTIVES AND GOALS

An understanding of health care requires examination of both objectives and goals. **Objectives** are short-term, measurable, and often individual in scope. **Goals** represent broad aspirations for the future, reflecting the well-being of an entire nation or society. Recognizable goals are necessary for assessing performance of any system as a whole.

Most objectives sought by consumers of health care are obvious. These include prevention of illness, relief of symptoms, restoration of function, and extension of life. Beyond these basics, though, people today seek a wide variety of health care objectives that are relatively new. Many who are biologically normal, for example, desire to improve how they look, feel, and relate to others, and look to health care for solutions. The popularity of cosmetic surgery and lifestyle-enhancing medication illustrates this development.

Objectives proposed for health care include some that are far beyond the traditional concerns of doctors and healers. Physicians today are legally required to report evidence of child, spouse, or elder abuse. Doctors crusade against youth violence in the name of protecting individuals' health. On a global scale, physician organizations have taken stands to reduce the threat of nuclear war, characterizing such action as "the ultimate form of preventive medicine."[11]

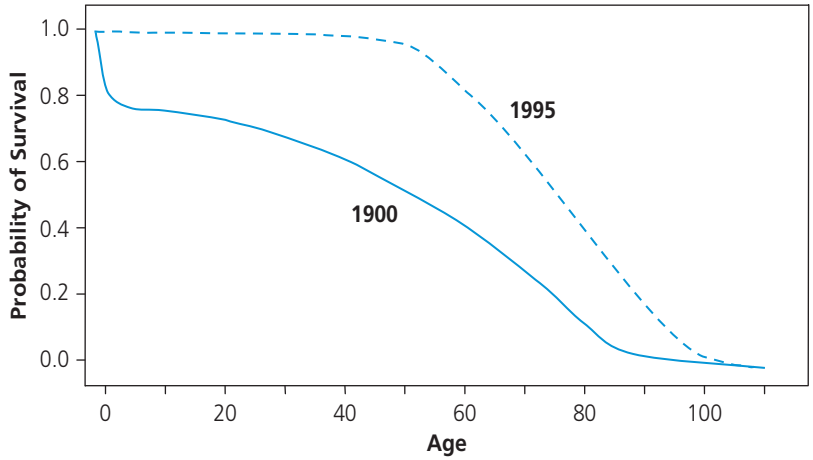
Goals of health care depend on fulfillment of a multitude of objectives, but go beyond any of those specified above. A goal of extreme breadth is implicit in the conception of health adopted by the World Health Organization (WHO), a unit of the United Nations. According to this conception, health is characterized as "a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity."[12] Although this conception was formulated in 1947, it is still widely cited today.

An equally ambitious, though more concrete, goal of health care is the *rectangularization of survival.*[13] This concept refers to concentration of deaths in a population within a particular age range, presumably one approaching the natural limitation of the human lifespan. Under such a scenario, nearly everyone might live to a particular age (perhaps eighty, ninety, or one hundred years) and die rapidly thereafter.

Figure 1.2 illustrates a trend toward rectangularization of survival among U.S. women between 1900 and 1995. This graph indicates a decreasing probability of survival with every passing year in 1900, but a steady rate of survival until about age sixty in 1995. Thus, the 1995 survival curve begins to look like a rectangle. Were the trend to continue over the following century, the 2100 curve, it might be speculated, would fall off even more sharply at some natural limit. In a variation on the rectangularization concept, the goal of a health care system might be maintenance of a "wellness span," to a point where nearly everyone remained fully functional until a particular and very old age.

Both the WHO-inspired goal for health care and the rectangularization of survival present practical difficulties. Neither lends itself to straightforward measurement of progress. Documentation of "complete physical, mental, and social well-being" would require assessment of numerous features of the lives of a multitude of individuals. Though more readily expressed as numbers, rectangularization of survival is no less

FIGURE 1.2 *Survival curves by age for U.S. women in 1900 and 1995*



Source: Wilmoth JR, Horiuchi S. Rectangularization revisited: variability of age at death within human populations. *Demography*. 1999;36(4):475–495. Table 1.c.

definitively measured. Scientists do not agree that there is a natural limit to human life. According to some, there is little evidence that achievable human life expectancy, having increased steadily over the past century, is reaching a limit.[14]

Though important for assessing progress, widely acceptable goals are difficult to both formulate and measure. In addition, pursuit of individual objectives may undermine achievement of overarching goals. Effective treatment of chronic, heritable diseases—diabetes and certain kidney ailments, for example—increases the presence of people with such conditions in today's population and in generations to come. Antibiotics may provide prompt relief of pain from minor infections, but limit the remedies available to the seriously injured due to development of antibiotic-resistant pathogens. The goal of health care cost containment is widely endorsed in the United States. But denial of potentially useful services for reasons of cost is strongly resisted by those whose individual service needs are affected.

ESSENTIAL CHALLENGES IN HEALTH CARE

As suggested earlier, health care involves features that create challenges and dilemmas wherever it is practiced. Health care directly involves the client's body; she cannot walk away from the health care provider as readily as from a provider of other goods and services. Health care addresses the most profound of human experiences, including pain, suffering, life, and death. Across national boundaries and through the ages, healers have held special but not entirely honored status in society. As consumers, the sick seldom seem entirely satisfied. On several dimensions, tension and dissatisfaction may be universal.

Negative Demand

It is safe to say that few, if any, individuals *desire* health care in the normal sense. Except possibly for hypochondriacs, no one *wants* to see a physician or be admitted to a hospital. Even when people get sick, most would prefer to treat themselves or hope the illness would resolve on its own. People seek care—however negatively they may view it—when they feel they have no choice. In this respect, obtaining health care resembles the purchase of a casket for a deceased loved one or coughing up tuition for the feared finance or accounting course required for a management degree.

In consequence, consumers are often predisposed to viewing their encounters with health care providers and organizations negatively. The wait time at a doctor's office is experienced as more onerous than a similar delay for a table at a fine restaurant. Reasonable fees may be viewed as exorbitant. Paradoxically, some consumers seem to enjoy complaining about their health care. These individuals thus obtain some emotionally positive returns from what they perceive as a negative encounter with the system.

Uncertain Costs

Traditionally, charges to consumers are more variable in health care than they are in other areas of trade. For centuries physicians have accepted payment on a sliding scale dependent on the consumer's resources. In nineteenth-century literature, the husband of Madame Bovary, a physician, receives payment in gold from a wealthy patient, but forgets to collect the meager debts owed him by the common people. In the mid-twentieth century, physicians in the United States expected that a goodly proportion of their bills would never be paid. Traditionally, hospital administrators have referred to their receivables as *spongy*—never fully solid in terms of eventual collectability. Well into the late twentieth century, health care managers practiced various forms of *cost shifting,* in which higher charges to well-insured patients were used to subsidize lower receipts from the poorly insured, uninsured, and indigent.

It is no accident, then, that payment for health care is viewed by the public as less obligatory than payment for nonhealth goods and services. Many consumers feel a sense of entitlement to health care. A bill is seldom paid entirely out of pocket. Few patients ask a doctor how much a procedure will cost or shop for the lowest-priced practitioner. An unpaid medical bill represents less liability to the consumer than a neglected car payment—repossession of items such as pacemakers and prostheses takes place rarely if at all.

Unpredictable Outcomes

An essential unpredictability prevails in much of health care. Many standard interventions, preventive or curative, are available for a wide range of frequently encountered diseases. But the human organism is variable, and many factors—both internal and external to the individual—contribute to resistance versus expression of disease. In some cases, diagnosis is complex and inconclusive, adding to uncertainty of cure. In instances where diagnosis is evasive, physicians may treat a suspected disease in hopes that diagnosis and treatment will be accomplished in the same step.

Uncertainty of success accompanies many treatments for cancer and other chronic diseases. Standard chemotherapy and radiation protocols cure some patients and not others. Trials of new interventions are, from the patient perspective, instances of chance taking. A physician can honestly tell his patient that there are no guarantees.

Whether associated with mild or life-threatening illness, uncertainty differentiates health care from other goods and services. On the patient level, uncertainty may raise issues of trust in the provider's capability. Uncertainty may be humbling for the provider. But acknowledgment of uncertainty underscores an essential element of clinical practice. No two cases are identical. Good medicine cannot be practiced cookbook-fashion.

An Evasive Diagnosis

Baffling even the most experienced physicians at a university medical center, the case of a nine-year-old girl illustrates the evasiveness of clinical success. For six months, the patient had been chronically nauseated, vomiting, unable to eat, and losing weight. Extensive blood work and imaging failed to detect intestinal obstruction, lactose intolerance, and the autoimmune syndrome Crohn's disease. Thinking they had ruled out gastroenterological causes, doctors considered the possibility of a brain tumor and ordered an MRI.

The evening before the scheduled MRI, a family practice intern examined the girl. He examined the girl's hands—eating disorders are often revealed by calluses caused by chronic self-induced vomiting—and, finding no calluses, ruled out an eating disorder. Although there were no calluses, the intern noticed a darkening of the skin. Darkened skin can be a clue for Addison's disease, an adrenal gland disorder. Measures were taken of sodium, potassium, glucose, and cortisol, which, abnormally low, confirmed Addison's disease as the correct diagnosis.

Low levels of sodium, potassium, and glucose had been detected earlier. But other features of the girl's illness seemed to explain the low concentration of these blood chemicals, and the possibility of Addison's disease was not pursued. A simple observation of darkened skin led a physician still in training to make a diagnosis that had stumped others for months. Within hours of starting treatment for Addison's disease, the patient began to recover.[15]

Emotional Involvement

Health care is often given and received in an atmosphere inflamed by human emotion. Anxiety and fear follow hard upon injury, illness, and the possibility of death. Medical uncertainty—along with the ever-present possibility of failure—fosters disappointment, frustration, and anger at health professionals and institutions. The role of patient

is the most powerless that many people ever experience. A story is told by a distinguished obstetrician about President John F. Kennedy watching as doctors struggled to successfully deliver his son. Even the most powerful man in the world could do nothing but watch in this situation.

In few, if any, societies, then, do people live in complete comfort alongside those who treat their illnesses. The uncertainty of success, unpredictability of cost, aloofness of providers, and emotional overlay—along with the fact that few, if any, individuals desire to be patients—inevitably promote fault finding. An essential discomfort with medicine throughout the ages is evident in mythology and literature as early as ancient Greece. Century after century, storytellers and commentators have connected health care with excessive expense, inexcusable error, calculated self-interest, and potential injury.[16]

Aloof Providers

In contrast to the emotional involvement of patients is a seeming aloofness of medical professionals. Many patients perceive emotional detachment on the part of their providers, particularly physicians. Researchers report that low-income and minority patients are most likely to sense absence of a caring attitude on the part of their providers.[17] A vast gulf in income, education, and privilege is evident between physicians and most patients.

Some aloofness, however, may be necessary for clinical practice. Even a practitioner who is skilled at communicating and emotionally secure requires a degree of detachment from the challenges facing her patients. According to one physician, factors conducive to detachment include fear of adverse outcomes and consequent criticism, and "an instinct to separate oneself from another's suffering."[18] Training and mutual support within a closed community of peers helps the practitioner accommodate the emotional challenges encountered in practice.

Health professionals of all types receive privileges and responsibilities allocated to few others. Practitioners are allowed to see patients naked, ask personal questions, pierce flesh with needles, and insert hands into bodies through surgical openings. The symbolism and ritual of medicine, still represented today by the snakes and staff of the caduceus, help maintain the provider's paradoxical combination of presence and absence.

Challenges on the Front Lines

Like consumers, people in the health care industry experience confusion, frustration, anger, and feelings of powerlessness. Those at the front lines most directly experience the impact of increasing demands, limitations on resources, and challenges raised by advances in biomedical science. Following are some examples: