KRISTINA M. YOUNG ~ PHILIP J. KROTH

NINTH EDITION

Sultz & Young's HEALTH CARE USA Understanding Its Organization and Delivery



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Understanding Its Organization and Delivery

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Printed in the United States of America 21 20 19 18 17 10 9 8 7 6 5 4 3 2 1 This book is dedicated to our parents, Jacob Jay and Marie Young, and Joseph R. Kroth and Nathalie Baszczynski-Kroth. We owe each of them our untold gratitude for the values they instilled and the examples they provided.

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Foreword

This ninth edition of *Health Care USA: Under*standing Its Organization and Delivery marks the end of an era and the beginning of a new one. In the early 1990s, I was invited to create a series of books on epidemiology, public health, and health care. For the volume on health care, I engaged my esteemed colleague and good friend Professor Harry Sultz, who, in turn, invited Professor Kristina Young to join him as coauthor. Having had unique and complementary experiences, they produced the first edition of this book in 1996, and it became a best seller.

Throughout his professional career, Professor Sultz was inspirational to his colleagues and students alike. He approached each new edition of the book with excitement. He always kept the reader in mind as he wrote clearly and succinctly. For each edition, he included the most up-to-date advances in health care with the comments and analyses of a seasoned researcher and author. Woven through the many subjects covered in the book, the reader can sense the special contribution of Professor Sultz, an author who indeed has "been there."

In 2014, after the eighth edition was published, Professor Sultz decided to retire from his coauthorship of the text, but his thoughts and contributions will continue to be evident in the ninth and succeeding editions. This ninth edition, under the able lead authorship of Kristina Young and with her new, highly credentialed coauthor, Dr. Philip Kroth, will continue the tradition of being on the cutting edge of understanding the complex issues of health care and its delivery—a fitting tribute to Professor Harry Sultz.

Now, almost 7 years since becoming law in 2010, the Patient Protection and Affordable Care Act (ACA) has survived an unprecedented number of Congressional challenges. Although the period since its implementation is very short in historical terms of system change, the ACA is beginning to yield results.

Through the ACA, more than 20 million Americans have gained access to health insurance through state-based marketplace exchanges and Medicaid expansion. Valuebased payment reforms through patientcentered medical homes, accountable care organizations, and historic physician payment reforms are beginning to reign in cost growth and improve healthcare quality through increased transparency and accountability. It is certain that experimentation with new healthcare delivery models will continue to identify best practices as healthcare providers and organizations continue adapting to the ACA and marketplace changes.

The ninth edition of *Health Care USA* provides a clear overview of the technical, economic, political, and social forces that shape the healthcare industry and the public health enterprise. The authors have meticulously screened vast amounts of new information to include critical updates that make important contributions to students'

knowledge of the current healthcare delivery system with a population focus.

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We also appreciate the invaluable help of experts who performed editing, literature searches, word processing, and other support services. This and earlier editions of this book benefited inestimably from the health care and library and information science research expertise of Karen Buchinger. Sharon Palisano reviewed and word processed all manuscripts of the nine editions of this book with meticulous attention to every detail of the publisher's requirements. We remain grateful for her unparalleled professional skill and patience with the complex details of these large texts. We also wish to recognize the important contributions of our publisher and publisher's staff for encouraging our efforts, helping shape the results, and motivating us to improve the book's utility to its users. To each of you we offer our profound thanks.

About the Authors

Kristina M. Young, MS, is a clinical assistant professor emerita who also served as the co-director of the health services administration concentration in the Department of Epidemiology and Environmental Health at the School of Public Health and Health Professions, State University of New York at Buffalo. For more than 20 years at the University at Buffalo, she taught graduate courses in healthcare organization and health policy for students in the fields of public health, law, and management. For several years, she also taught graduate courses on healthcare systems at Canisius College in Buffalo, New York. Ms. Young also is president and owner of Kristina M. Young & Associates Inc., a management consulting and training firm specializing in health and human services organizations. Her career has included administration of maternal and child health programs for a county health department; executive director of a multi-county public health alliance; executive vice-president of an organization dedicated to advancing the joint interests of a major teaching hospital and a health maintenance organization; and vice president for research and development for a teaching hospital system and executive director of its health, education, and research foundation. Ms. Young received her BA degree in biology from Canisius College in Buffalo, New York, and her M.S. degree in epidemiology from the State University of New York at Buffalo School of Medicine.

Philip J. Kroth, MD, MS, is an associate professor in the University of New Mexico (UNM) School of Medicine. He is also is the director of the Biomedical Informatics Research, Training, and Scholarship unit at the UNM Health Sciences Library and Informatics Center and Section Chief of Clinical Informatics in the UNM Department of Internal Medicine. Before joining UNM in 2004, Dr. Kroth received his B.S. in Computer Engineering from the Rochester Institute of Technology in 1987, his MD degree from the Medical College of Ohio in 1995, and completed his residency in internal medicine at the State University of New York at Buffalo in 1999. He completed a research fellowship in biomedical informatics at the Regenstrief Institute at the Indiana University Medical Center where he also earned an MS in clinical research in 2003. At UNM, in addition to practicing as a general internist, he directs a post-doctoral research fellowship in biomedical informatics and a new clinical informatics fellowship for physicians. Dr. Kroth was elected national chair of the American Medical Informatics Association Academic Forum for 2015. Dr. Kroth's areas of research focus include adapting clinical records for research, the promotion of open access publication, and assessing the impact of health information technology (HIT) on user burnout and fatigue. He is currently the principal investigator of an AHRQfunded, multi-institutional research project focusing on clinician HIT stress. Dr. Kroth is board-certified in both internal medicine and clinical informatics.

About the Contributor

Susan V. McLeer, MD, MS, is professor and chair emerita of the Department of Psychiatry at the Drexel University College of Medicine and former professor and chair of the Department of Psychiatry at the State University of New York at Buffalo School of Medicine and Biomedical Sciences, Board-certified in both psychiatry and child and adolescent psychiatry and with a master's degree in psychiatric administration, she has extensive experience in managing and integrating services at all levels of care, both within public and private behavioral health systems. She continues as a fierce advocate for improvements in the public sector system of care and has taught multiple generations of medical students and residents aspiring to care for people who are in need of psychiatric and/or behavioral health services.

Dr. McLeer has more than 85 publications to her credit, including peer-reviewed journal articles, book chapters, and published abstracts. Combining her experience at the medical schools in Buffalo, New York, and Philadelphia, Pennsylvania, she has been the chair and chief clinical officer for an academic department of psychiatry for more than 19 years and served in academia for 40 years. She currently serves and provides expert consultation for the American Psychiatric Association's National Council on Healthcare Systems and Financing, a position she has held for more than 10 years. Additionally, she is an active member and contributor to the Council's Workgroup on Public Sector Psychiatry, a group that has been actively studying the impact of the U.S. economy on public sector behavioral health systems.

Introduction

The prior edition of this text devoted substantial material to outlining and explaining the new landmark Patient Protection and Affordable Care Act of 2010 (the ACA). At that point, work had just begun on enacting the ACA, and it had already survived U.S. Supreme Court challenges on the constitutionality of its core provisions for the "individual mandate" and Medicaid expansion.¹ The law survived another major challenge in 2015 when the Supreme Court deliberated a lawsuit alleging that federal tax subsidies to help offset health insurance costs for individuals in certain states were illegal.1 Now, more than 6 years after its passage and approximately 3 years after its major provisions became effective, the impact of this young law is most evident by the fact that more than 21 million Americans have gained access to affordable health insurance through enrollment in private insurance and the public Medicaid program.^{2,3} In 2015, for the first time in its 50-year history of conducting national surveys, the Centers for Disease Control and Prevention reported that the proportion of uninsured Americans had fallen below 10 percent.⁴ While the historic reduction in the uninsured population is already well established, the provisions of the ACA designed to control the rising costs of health care and improve its quality are not yet fully implemented. To meet its cost-reduction goals, the ACA is now starting to make historic changes to the ways in which health care is delivered and how providers are compensated. In addition, the ACA embraces a population perspective on health and health care. This perspective shifts the system's longstanding focus from the care of individuals to health outcomes achieved for population groups. Increasingly, providers' compensation will be linked to quality of outcomes in populations under their care.

As the ACA achieves its intended effects over the coming years, the healthcare delivery system is expected to emerge from its old form of fragmented, piecemeal services and payments and opaque quality. The new system is expected to be one in which integrated systems of coordinated care reward providers for continuity of care and publicly disclosed outcomes. Along with the ACA, newer legislative initiatives such as the Medicare Access and Children's Health Insurance Program Reauthorization Act of 2015 (MACRA) will promote synergistic effects with the ACA and are discussed in detail in this new edition. In producing this edition, it was highly evident to the authors that prior lines of demarcation among delivery-system components are rapidly blurring as the population perspective gains traction. For example, the ACA continues experiments in which patients' illnesses are treated and paid for as single "episodes of care" by all involved providers-primary care physicians, specialists, hospitals, and others, in a seamless continuum rather than in a series. of disconnected encounters.5 While major system components remain largely intact, the ways in which they operate and interact with each other are changing dramatically. These are positive and challenging developments for healthcare providers and patients alike. They offer many opportunities for more efficient and effective use of U.S. healthcare resources and most importantly for the health of Americans.

We hope that our treatment of the subject matter provides a foundation for comprehending facts to encourage curiosity about continuing developments and the effects of legislation as its implementation proceeds. We also note that in just the first 2 years since its passage, proposed rules and regulations to implement the ACA underwent changes and revisions. As with any legislation, these changes and revisions can be expected to continue in what will be an ongoing and dynamic process.

The U.S. healthcare system remains a mystifying puzzle to many Americans, and ongoing changes will doubtless add additional complexity. Health care in the United States is an enormous \$3 trillion industry. It includes thousands of independent medical practices, business partnerships, provider organizations, public and nonprofit institutions, hospitals, nursing homes, the pharmaceutical industry, and huge health insurance corporations. Health care is by far the largest service industry in the country. In fact, U.S. healthcare system expenditures rank it as the world's fifth largest economy, second only to that of the entire economy of Germany and larger than the entire economy of the United Kingdom.6

More intimidating than its size, however, is its complexity. Not only is health care a labor-intensive industry at all levels, but also the types and functions of its numerous personnel change periodically to adjust to new technology, knowledge, and ways of delivering services. As is frequently associated with progress, medical advances often create new problems while solving old ones. The explosion of medical knowledge that produced narrowly defined medical specialties compounded a longstanding shortcoming of American medical care. The delivery of sophisticated high-technology health care requires the support of a vastly complicated infrastructure that has resulted in disarray and allowed patients to fall between the cracks among its narrowly defined services and specialists. In addition, even at its enormous expense, the system proved inept in securing even a modicum of universal health insurance coverage for the general population.

The size and complexity of health care in the United States has contributed to its longstanding problems of limited access, inconsistent quality, and uncontrolled costs. The healthcare system remains challenged by disparities that result in wide variations in the access, availability, and quality of services for many of its citizens. These problems have concerned U.S. political and medical leaders for decades and motivated many legislative proposals aimed at reforms. Since World War II, attempts at major reforms were mounted by President Truman in the 1940s, President Johnson in the 1960s, President Nixon in the 1970s, and President Clinton in the 1990s.7 Johnson's efforts resulted in the 1965 passage of Medicare, which provided universal health insurance to Americans beginning at 65 years of age, and Medicaid, which provided health insurance for qualifying low-income individuals of all ages. Nixon's legislation resulted in the HMO Act of 1973, which laid groundwork for development of the managed care insurance system of today. Truman's and Clinton's proposals failed. However, neither the Johnson nor Nixon successes resulted in comprehensive reforms, costs in line with other industrialized nations, or universal benefits for all Americans. Over years of implementation that will continue through 2019, the spectrum of the ACA provisions will vastly exceed the impacts of Medicare and Medicaid. Medicare and Medicaid affected specific populations of individuals qualified by program criteria; the ACA affects virtually all Americans.

Given the past history of failed attempts at comprehensive health reform, the ACA's development and passage within 14 months of President Obama's taking office in January 2009 is historically unprecedented and represents an unparalleled time trajectory for legislation of this magnitude, scope, and complexity. In fact, on the occasion of signing the new law, the President himself commented, "Our presence here today is remarkable and improbable."⁸ The chronicle of rancorous partisan political debates, passionate outcries from a misinformed citizenry, negotiations with interest groups, and intervening events, such as the death of Democratic Senator Edward Kennedy and his replacement with a Republican, fills volumes in the history of the ACA.

The timing of the ACA's development, and ultimately its passage, represented the Obama administration's rapidly seizing a "policy window of opportunity" to put comprehensive health reform on the Congressional agenda. As described by a public policy expert, this "policy window of opportunity" for new or amended legislation arises when problems have reached a magnitude of scope and urgency that allows their survival in competition from other issues; potentially feasible solutions can be identified; and sufficient political will exists to drive the process forward.9 In the case of the proposed ACA, problems included the widely acknowledged economic unsustainability of rising healthcare costs linked with the allimportant issue of the rising federal deficit; the moral, social, and economic implications of more than 40 million uninsured citizens; and the system's well-documented shortcomings in quality. Proposals for potential solutions to these problems had a very lengthy and evidence-based research history. Political will to move comprehensive health reform onto the legislative agenda was established early by the highest-profile contenders for the 2008 Democratic party presidential nomination agreeing that they would support "universal coverage."10 Also, in early 2008, the very powerful health-reform advocate Senator Edward Kennedy agreed to endorse Mr. Obama's candidacy with the pledge of Obama's commitment to make healthcare reform his top

domestic priority, including a commitment to universal coverage.⁸ Finally, with a new president elected on a platform of change and Democratic majorities in both houses of Congress, the "policy window of opportunity" allowed moving the comprehensive health reform agenda forward.

Over many past decades, healthcare reform as a market-driven, rather than a policydriven, phenomenon began well in advance of the new healthcare reform legislation. Since the 1990s, in a world of accelerating consolidation to achieve ever-higher standards of effectiveness and economy, there have been surges of healthcare facility and service organization mergers and acquisitions, with new roles for individual and organizational providers. ¹¹ In the past few years, the term "merger mania" describes rapid consolidations of hospital systems and insurers to prepare for the payment and delivery reforms of the ACA and other legislation.12 Today, hospitals compete for patients and "market share," independently operated clinics are springing up in unprecedented numbers with convenient locations and venues, and physician group practices are forgoing their independence to embrace hospital employment to join with integrated systems of care that leverage population-based reimbursement schemes of the reformed system.¹³ All of these factors will continue to interplay in highly dynamic professional, political, and economic landscapes as effects of legislative reforms continue unfolding.

The ninth edition coalesces the unique and congruent perspectives of its authors. Ms. Young is a career health services administrator, who trained as an epidemiologist and taught graduate courses for two decades in schools of medicine, public health, management, and law. Dr. Kroth is board-certified in both internal medicine and clinical informatics. He is an active clinician, researcher, informatics training program administrator, and medical school faculty member and mentor. Collectively, the authors have worked in the academic, research, clinical, and health management spheres for decades and have assiduously studied and followed developments in the healthcare delivery system. In particular, their work with students always seeks ways to convey balanced perspectives on the outstanding features of the U.S. healthcare delivery system as well as its foibles.

As in the past eight editions, this edition intends to serve as a text for introductory courses on the organization of health care for students in schools of public health, medicine, nursing, dentistry, and pharmacy and in schools and colleges that prepare a host of other allied health professionals. It provides an introduction to the U.S. healthcare system and an overview of the professional, political, social, and economic forces that have shaped it and the provisions of new legislation that will continue to do so.

To facilitate its use as a teaching text, when read in sequence, chapters provide incremental additions of information to complete the reader's understanding of the entire healthcare system. As in prior editions, decisions about what subjects and material were essential to the book's content were relatively easy, but decisions about the topics and content to be left out were difficult. This was especially challenging as we researched the ACA and related legislation and made decisions about the breadth and depth of its subject matter to include. Thus, the authors acknowledge that information presented on the ACA and subsequent legislation is limited to what we believe most pertinent to the text's major subjects and note that the information is not exhaustive. Copious references are provided to lead interested readers to explore subjects in more detail and depth. Second, the authors respectfully acknowledge that certain categories of healthcare professionals may be disappointed that the text contains so little of the history that characterizes the evolution of their important professions. Given the centrality of those historical developments in students' educational preparation, the authors assumed that books written specifically for those purposes would be included in courses in those professional curricula. To be consistent with that assumption, the authors included only those elements in the history of public health, medicine, and hospitals that had a significant impact on how health care is delivered.

The authors made similar difficult decisions regarding the depth of information to include about other subjects. Topics such as epidemiology, the history of medicine, program planning and evaluation, quality of care, and the like each have their own libraries of in-depth texts and, in many schools, dedicated courses. Thus, the authors deemed it appropriate in this introductory text to provide only enough descriptive and interpretive detail about each topic to place it in the context of the overall subject of the book.

In this ninth edition, as in each previous edition, the authors have included important additions and updates to provide a current perspective on the healthcare industry's continuously evolving trends.

The authors hope that as this book's readers plan and expand their educational horizons and, later, their professional experiences, they will have the advantage of a comprehensive understanding of the complex and dynamically evolving system in which they practice.

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New to the Ninth Edition

The ninth edition updates all key financial, utilization, and other data with the latest available information. In addition, it conveys important, ongoing, and interrelated trends in the healthcare delivery system about costs, quality, U.S. demographics, personnel, technology, the political climate, and other factors that affect the system. Based on student feedback on the eighth edition, we have eliminated Appendix A and instead included pertinent acronyms following each chapter. Students repeatedly expressed that listing acronyms on a chapter-by-chapter basis rather than in a separate Appendix would be most valuable to their learning.

Chapter 1: Overview of Health Care: A Population Perspective

- Current national health expenditure data
- New comparison of U.S. healthcare costs and health status with other developed countries
- Introduces the Medicare access and CHIP Reauthorization Act of 2015 (MACRA)
- Affordable Care Act tax provisions for insurance, pharmaceutical, and medical device companies.
- New estimates of the annual cost of addictive behaviors
- New report on the extent of medical errors
- Chapter acronyms

Chapter 2: Benchmark Developments in U.S. Health Care

- Expanded discussion of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) patient information privacy and security rules
- Discussion of discrete features of the Balanced Budget Act of 1997 relative to ongoing programs
- Updates on states' enactment of end-oflife legislation
- Addition of the Health Information and Technology for Economic and Clinical Health Act (HITECH) as a benchmark development in U.S. health care
- Updates on Affordable Care Act judicial challenges

Chapter 3: Health Information Technology

- Update on the Medicare and Medicaid Electronic Health Record Incentive Program also known as the Meaningful Use Program including new information on Modified Stage 2 and updated statistics on physician and hospital participation rates
- Updated national electronic health record adoption statistics

- New discussion of information blocking and associated Congressional action
- New topic on national conversion to ICD-10 billing codes
- New key terms and chapter acronyms

Chapter 4: Hospitals: Origin, Organization, and Performance

- Added definition and the significance of the Triple Aim
- Added definition and the significance of the Two-Midnight Rule
- Added definition and the significance of the Choosing Wisely campaign
- Added information on certification of hospitalists
- Added a new section on the Medicare Access & CHIP Reauthorization Act of 2015 (MACRA) and how this will impact hospitals' quality reporting and charge capture activities
- New key terms and chapter acronyms

Chapter 5: Ambulatory Care

- Update of Patient Protection and Affordable Care Act primary care initiatives, programs, and demonstrations with latest data available on implementation and results, including federally qualified health centers and primary care workforce development
- Increasing hospital employment of physicians
- Research findings and trends on implementation of the patient-centered medical home and accountable care organizations
- Trends in emergency department use and emergence of clinical observation units

- Trends in increasing utilization of urgent care and retail clinics
- Discussion of telehealth
- New key terms and acronyms

Chapter 6: Medical Education and the Changing Practice of Medicine

- Description of the new Clinical Informatics Subspecialty
- Description and discussion on the American Board of Medical Specialty's (ABMS) Maintenance of Certification (MOC) Program
- Delineation of training program accreditation and individual physician board certification activities
- Delineation of the typical training pathway for U.S. physicians
- Update on physician work force training issues and the ratios of generalist to specialist physicians and the changing demand
- New description of the NIH Public Access Policy and discussion of the free and open access to the biomedical literature
- New discussion on the shortage of residency program slots relative to the increasing number of U. S. medical school graduates
- Update on Physician Compare
- New key terms and acronyms

Chapter 7: The Healthcare Workforce

 Addition of Maintenance of Certification (MOC) for physicians

- Addition of a description of Medical Assistants and the role they play in the modern healthcare system
- Update on all employment statistics and job outlook for the various healthcare occupations with the most recent U.S. Census data available
- Update on complementary and integrative health to reflect current definitions and terminology as well as updated complementary and integrative medicine use statistics for adults and children
- Update on the lack of Congressional funding for the National Health Care Workforce Commission in the Affordable Care Act
- Expanded key terms for review

Chapter 8: Financing Health Care

- Most current national healthcare expenditure data with updated graphics
- Update on private health insurance coverage and costs
- Throughout the chapter, integration of ACA provisions in terms of system effects on payment and quality parameters for Medicare and Medicaid
- Current Medicare and Medicaid enrollment data
- Discussion of the federal financial impacts of the ACA implementation
- Organization of Medicare cost containment and quality initiatives by decade
- Introduction of Medicare and CHIP Reauthorization Act of 2015 (MACRA) into Medicare and Medicaid programs
- 2016 Medicaid managed care reform modernization legislation
- Parameters for Medicaid quality assessment of adult and children services
- Discussion of ACA Medicaid expansion results to date

- Addition of disproportionate share hospital payments in Medicaid section
- Update on health insurance marketplaces
- New key terms and acronyms

Chapter 9: Long-Term Care

Updated:

- Projections of older American population
- Data on all forms of long-term care accommodations
- Data on long-term care resident characteristics, costs, and payment sources
- Data on nursing home ownership
- Data on number and dollar value of informal long-term caregivers
- Data on continuing care retirement and life care communities

Reports on:

- Ground-breaking 2012 National Study of Long-Term Care Providers (NSLTCP)
- Emerging states' initiatives to expand paid family medical leave

Chapter 10: Behavioral Health Services

- New data and figures on the prevalence of all mental illness and serious mental illness by age groups, gender, and race/ ethnicity
- Updated data and figures on types of neuropsychiatric disorders
- New cost data for behavioral health services
- New discussion of the impact of the Affordable Care Act insurance and Medicaid expansions on access to behavioral health services

- New review of homelessness and incarceration among mentally ill persons
- New discussion of behavioral health manpower shortages and evolving personnel changes in delivery of behavioral health treatment
- New discussion of the integration of psychiatric and primary care services through the evidence-based collaborative care model

Chapter 11: Public Health and the Role of Government in Health Care

- Enhanced descriptions of federal, state, and local roles in U.S. health care and public health
- New figure on distribution of DHHS funds by program for FY 2017 budget
- New 2017 information on the Department of Health and Human Services programs and budgets
- Healthy People 2020 progress report
- New detailed discussion of the roles and responsibilities of state and local public health departments
- New tables outlining major state and local health department activities
- New discussion of research findings on state and local health department relationships
- Updated report on the deployment of the ACA Public Health Fund
- New discussions of domestic public health challenges: gun violence, opioid addiction, lead poisoning, and chronic disease management
- New discussion of recent and current U.S./ global public health infectious disease

challenges and implications: Ebola, pandemic influenza, Severe Acute Respiratory Syndrome (SARS), and Zika virus

Additional key terms and acronyms

Chapter 12: Research: How Health Care Advances

- New and updated section on evidencebased medicine
 - The hierarchy of evidence
 - Detailed example using the Women's Health Initiative to describe the differences between observational studies and randomized controlled clinical trials
 - Definitions of systematic reviews, randomized controlled clinical trials, observational studies, case series, and expert opinion
 - Discussion of the ethics of randomized controlled clinical trials
- Clarification of the terms Big Data and Big Data Analytic for observational studies
- Discussion of the influence of the pharmaceutical industry over medical education and student-led push back
- Information on research ethics per the ACA Sunshine Act
- Updated Future Challenges section
- New key terms and acronyms

Chapter 13: Future of Health Care

 Current overview of federal policies and regulations on population-based approaches to medical care and associated payment reforms including the Medicare Access and CHIP Reauthorization Act of 2015

- Update on healthcare technology trends and costs
- Updates on health system mergers and acquisitions and their effects
- Review of Congressional funding actions on ACA provisions
- Updated information on the future of employer-sponsored health insurance and the adoption of high-deductible health insurance plans

CHAPTER 1

Overview of Health Care: A Population Perspective

CHAPTER OVERVIEW

This chapter provides a broad overview of the U.S. healthcare industry—its policies, its values and priorities, and its responses to problems and changing conditions. It also provides a template for understanding the natural histories of diseases and the levels of medical intervention. Major influences in the advances and other changes to the health services system are described with pertinent references to the Patient Protection and Affordable Care Act of 2010 (ACA) and the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Conflicts of interest and ethical dilemmas resulting from technologic advances in medicine are also noted.

Health care continuously captures the interest of the public, political leaders, and all forms of media. News of medical breakthroughs, health system deficiencies, high costs, and, most recently, federal healthcare reform through the Patient Protection and Affordable Care Act (ACA) attract high-profile attention. Consuming more than 17 percent of the nation's gross domestic product,¹ exceeding \$3 trillion in costs,¹ and employing a workforce of more than 12 million,² health care occupies a central position in American popular and political discourse. In large measure, decades-long problems with rising costs, questionable quality, and lack of healthcare system access for large numbers of un- or underinsured Americans prompted the development and passage of the ACA. If the ACA is successful in accomplishing its intended goals by 2019, it will extend health insurance coverage to millions of uninsured people; the remaining uninsured will be illegal immigrants, low-income individuals who do not enroll in Medicaid, and others who choose to pay a penalty rather than purchase coverage.³ Based on 2013 data from the Organization for Economic Cooperation and Development (OECD) and other sources, a 2015 Commonwealth Fund report compared the United States with 12 other high-income OECD member countries throughout the world on healthcare spending, use of services, and prices. Compared with its high-income peer nations, U.S. population health outcomes are poor with the lowest life expectancy and the highest rates of infant mortality.⁴

These are startling outcomes given that the percentage of gross domestic product the United States devotes to health care is almost double the average of the other OECD member countries.⁴ Although the ACA will provide vastly increased access to health care for millions of Americans, there are strong reasons why policy makers focus on whether increased access can result in measurable improvements in Americans' health status. "Health policy researchers are increasingly aware of the dangers of overstating the link between insurance and health."⁵ As some suggest, improvements in population health will require success in merging the concepts of public health into the reformed system's approach to personal medical care.³ With the ACA's emphasis on prevention and wellness and realigned financial incentives to support these, there is even reason for optimism that "over time, prevention and wellness could become a dominant aspect of primary care."³

For many, the fortunes and foibles of health care take on deeply serious meanings. There was a widespread sense of urgency among employers, insurers, consumer groups, and other policy makers about the seemingly unresolvable problems of inadequate access, rising costs, and questionable quality of care. Passionate debates about the ACA in healthcare reform focused many Americans on the role health care plays in their lives and about the strengths and deficiencies of the complex labyrinth of healthcare providers, facilities, programs, and services.

Problems of Health Care

Although philosophical and political differences historically fueled the debates about healthcare policies and reforms, consensus finally emerged that the U.S. healthcare system is fraught with problems and dilemmas. Despite its decades-long series of impressive accomplishments, the healthcare system exhibits inexplicable contradictions in objectives; unwarranted variations in performance, effectiveness, and efficiency; and longstanding discord in its relationships with the public and with governments.

The strategies for addressing the problems of cost, quality and access over the eight decades since the passage of the Social Security Act reflected periodic changes in political philosophies. Government-sponsored programs of the 1960s were designed to improve access for older adults and low-income populations without considering the inflationary effects on costs. These programs were followed by regulatory attempts to address first the availability and price of health services, then the organization and distribution of health care, and then its quality. In the 1990s, the ineffective patchwork of government-sponsored health-system reforms was superseded by the emergence of market-oriented changes, competition, and privately organized managed care organizations (MCOs).

The failure of government-initiated reforms created a vacuum, which was filled quickly by the private sector. There is a difference, however, between goals for healthcare reform of the government and those of the market. Although the proposed government programs try to maintain some balance among costs, quality, and access, the primary goal of the market is to contain costs and realize profits. As a result, there remain serious concerns that market-driven reforms may not result in a healthcare system that equitably meets the needs of all Americans and may even drive up costs.⁶

Understanding Health Care

Healthcare policy usually reflects public opinion. Finding acceptable solutions to the perplexing problems of health care depends on public understanding and acceptance of both the existing circumstances and the benefits and risks of proposed remedies. Many communication problems regarding health policy stem from the public's inadequate understanding of health care and its delivery system.

Early practitioners purposely fostered the mystique surrounding medical care as a means to set themselves apart from the patients they served. Endowing health care with a certain amount of mystery encouraged patients to maintain blind faith in the capability of their physicians even when the state of the science did not justify it. When advances in the understanding of the causes, processes, and cures of specific diseases revealed that previous therapies and methods of patient management were based on erroneous premises, new information remained opaque to the American public. Although the world's most advanced and proficient healthcare system provides a great deal of excellent care, the lack of public knowledge has allowed much care to be delivered that was less than beneficial and some that was inherently dangerous.

Now, however, the romantic naïveté with which health care and its practitioners were viewed has eroded significantly. Rather than a confidential contract between the provider and the consumer, the healthcare relationship now includes a voyeuristic collection of insurers, payers, managers, and quality assurers. Providers no longer have a monopoly on healthcare decisions and actions. Although the increasing scrutiny and accountability may be onerous and costly to physicians and other providers, it represents the concerns of those paying for health care—governments, insurers, employers, and patients—about the value received for their expenditures. That these questions have been raised reflects the prevailing opinion that those who now chafe under the scrutiny are, at least indirectly, responsible for generating the excesses in the system while neglecting the problems of limited access to health care for many.

Cynicism about the healthcare system grew with more information about the problems of costs, quality, and access becoming public. People who viewed medical care as a necessity provided by physicians who adhere to scientific standards based on tested and proven therapies have been disillusioned to learn that major knowledge gaps contribute to highly variable use rates for therapeutic and diagnostic procedures that have produced no measurable differences in outcomes. Nevertheless, as discussions about system-wide reforms demonstrated, enormously complex issues underlie the health industry's problems.

Why Patients and Providers Behave the Way They Do

Throughout the evolution of the U.S. hospital system, a long tradition of physicians and other healthcare providers behaving in an authoritarian manner toward patients prevailed. In the past, hospitalized patients, removed from their usual places in society, were expected to be compliant and grateful to be in the hands of professionals far more learned than they. More recently, however, recognizing the benefits of more proactive roles for patients and the improved outcomes that result, both healthcare providers and consumers encourage patient participation in healthcare decisions under the rubric of "shared decision making."⁷

Indexes of Health and Disease

The body of statistical data about health and disease has grown enormously since the late 1960s, when the government began analyzing the information obtained from Medicare and Medicaid

claims and computerized hospital and insurance data allowed the retrieval and exploration of clinical information files. In addition, there have been continuing improvements in the collection, analysis, and reporting of vital statistics and communicable and malignant diseases by state and federal governments.

Data collected over time and international comparisons reveal common trends among developed countries. Birth rates have fallen and life expectancies have lengthened so that older people make up an increasing proportion of total populations. The percentage of disabled or dependent individuals has grown as healthcare professions have improved their capacity to rescue otherwise moribund individuals.

Infant mortality and maternal mortality, the international indicators of social and healthcare improvement, have continued to decline in the United States but have not reached the morecommendable levels of countries with more demographically homogeneous populations. In the United States, disparities in infant mortality rates between inner-city neighborhoods and suburban communities may be greater than those between developed and undeveloped countries. The continuing inability of the healthcare system to address those discrepancies effectively reflects the system's ambiguous priorities.

Natural Histories of Disease and the Levels of Prevention

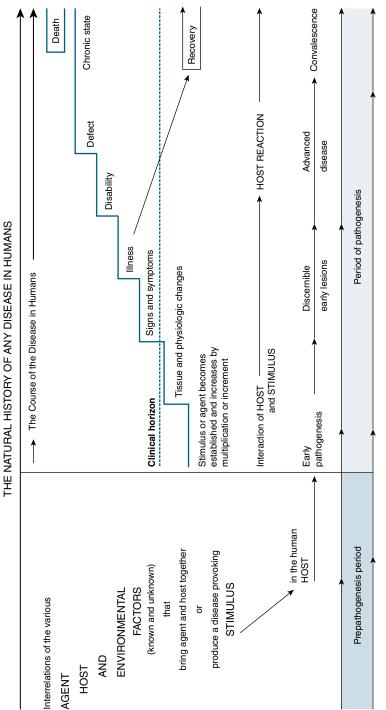
For many years, epidemiologists and health-services planners have used a matrix for placing everything known about a particular disease or condition in the sequence of its origin and progression when untreated; this schema is called the natural history of disease. Many diseases, especially chronic diseases that may last for decades, have an irregular evolution and extend through a sequence of stages. When the causes and stages of a particular disease or condition are defined in its natural history, they can be matched against the healthcare interventions intended to prevent the condition's occurrence or to arrest its progress after its onset. Because these healthcare interventions are designed to prevent the condition from advancing to the next, and usually more serious, level in its natural history, the interventions are classified as the "levels of prevention."⁸ **FIGURES 1-1, 1-2,** and **1-3** illustrate the concept of the natural history of disease and levels of prevention.

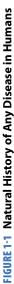
The first level of prevention is the period during which the individual is at risk for the disease but is not yet affected. Called the "pre-pathogenesis period," it identifies the behavioral, genetic, environmental, and other factors that increase the individual's likelihood of contracting the condition. Some risk factors, such as smoking, may be altered, whereas others, such as genetic factors, may not.

When such risk factors combine to produce a disease, the disease usually is not manifest until certain pathologic changes occur. This stage is a period of clinically undetectable, pre-symptomatic disease. Medical science is working diligently to improve its ability to diagnose disease earlier in this stage. Because many conditions evolve in irregular and subtle processes, it is often difficult to determine the point at which an individual may be designated "diseased" or "not diseased." Thus, each natural history has a "clinical horizon," defined as the point at which medical science becomes able to detect the presence of a particular condition.

Because the pathologic changes may become fixed and irreversible at each step in disease progression, preventing each succeeding step of the disease is therapeutically important. This concept emphasizes the preventive aspect of clinical interventions.

Primary prevention, or the prevention of disease occurrence, refers to measures designed to promote health (e.g., health education to encourage good nutrition, exercise, and genetic counseling) and specific protections (e.g., immunization and the use of seat belts).





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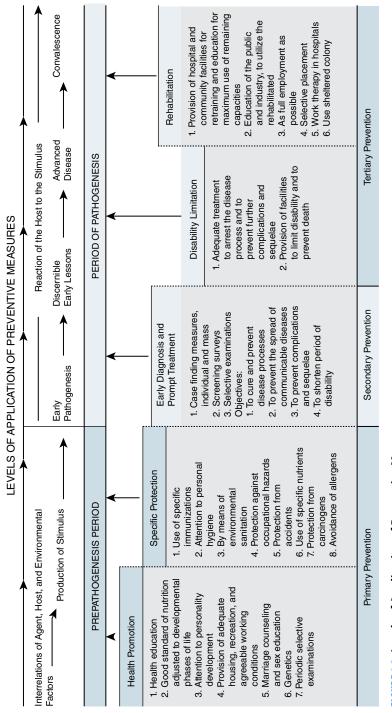
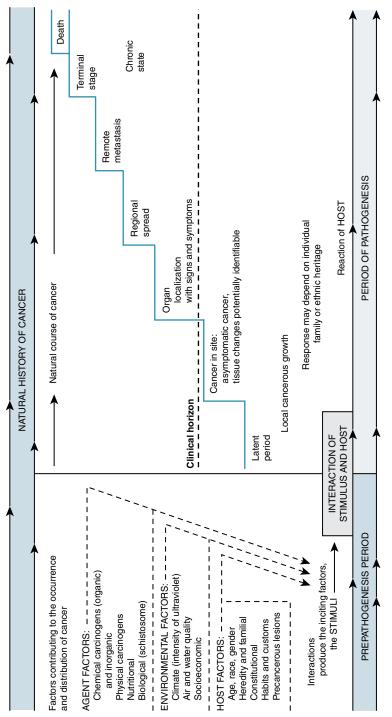


FIGURE 1-2 Levels of Application of Preventive Measures

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•	Physical and psychologic support and rehabilitation						Tertiary Prevention			
<			Disability Limitation	Convalescent care	Continued treatment	Surgical reconstruction	Prostheses		Tertiary P	ES AGAINST CANCER
Early Diagnosis and Prompt Treatment			Self examination	Cancer detection screening	Selective examinations	Radiation	Chemotherapy	Surgery	Secondary Prevention	LEVELS OF APPLICATION OF PREVENTIVE MEASURES AGAINST CANCER
<	Specific Protection	Specific Protection Elimination or protection against known and suspected carcinogens Detection and elimination of precancerous lesions							revention	LEVELS OF APPLICAT
Health Promotion	Education of community	toward cancer	Increased index of	suspicion	Recruitment and training of specialists	Environmental quality			Primary Prevention	

FIGURE 1-3 (continued) Natural History of Cancer

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Secondary prevention involves early detection and prompt treatment to achieve an early cure, if possible, or to slow progression, prevent complications, and limit disability. Most preventive health care is currently focused on this level.

Tertiary prevention consists of rehabilitation and maximizing remaining functional capacity when disease has occurred and left residual damage. This stage represents the most costly, labor-intensive aspect of medical care and depends heavily on effective teamwork by representatives of a number of healthcare disciplines.

FIGURE 1-4 illustrates the natural history and levels of prevention for the aging process. Although aging is not a disease, it is often accompanied by medical, mental, and functional problems that should be addressed by a range of healthcare services at each level of prevention.

The natural history of diseases and the levels of prevention are presented to illustrate two very important aspects of the U.S. healthcare system. First, in studying the natural history and levels of prevention for almost any of the common causes of disease and disability, it quickly becomes apparent that the focus of health care historically has been directed at the curative and rehabilitative side of the disease continuum. The serious attention paid to refocusing the system on population health and the health promotion/disease prevention side of those disease schemas is reflected by the National Prevention Strategy of the ACA.⁹ This attention came about only after decades of relentlessly rising costs of diagnostic and remedial care and the lack of adequate insurance coverage for millions of Americans became a public and political embarrassment.

The second important aspect of the natural history concept is its value in planning community services. The illustration on aging provides a good example by suggesting health promotion and specific protection measures that could be applied to help maintain positive health status.

Major Stakeholders in U.S. Healthcare Industry

To understand the healthcare industry, it is important to recognize the number and variety of the stakeholders involved. The sometimes shared and often-conflicting concerns, interests, and influences of these constituent groups cause them to shift alliances periodically to oppose or champion specific reform proposals or other changes in the industry.

The Public

First and foremost among healthcare stakeholders are the individuals who consume the services. Although all are concerned with the issues of cost and quality, those who are uninsured or underinsured have an overriding uncertainty about access. It remains uncertain as to whether the U.S. public will someday wish to treat health care like other inherent rights, such as education, but the passage of the ACA seems to suggest that there is agreement that some basic array of healthcare services should be available to all U.S. citizens.

Employers

Employers constitute an increasingly influential group of stakeholders in health care because they not only pay for a high proportion of the costs but also take proactive roles in determining what those costs should be. Large private employers, coalitions of smaller private employers, and public employers