Jonas and Kovner's Health Care Delivery in the United States

9 edition

Anthony R. Kovner, PhD, is professor of health policy and management at the Robert F. Wagner Graduate School of Public Service at New York University, in New York City. He is trained in organizational behavior, health services management, and social and economic development. He received bachelor's and master's degrees from Cornell University, and his doctorate in public administration is from the University of Pittsburgh. Kovner is an experienced health care manager, having served as CEO of a community hospital, senior health care consultant for a large union, and manager of a group practice, a nursing home, and a large neighborhood health center. He is a board member of Lutheran Health Care and of Health Plus in Brooklyn, New York. He has carried out several funded research projects, most recently on factors associated with the use of management research in hospitals and health systems. He is author or editor of 9 books, 43 journal articles, and 24 case studies. He has directed several national demonstration programs funded by major foundations. Kovner was the fourth recipient, in 1999, of the Gary L. Filerman prize for educational leadership from the Association of University Programs in Health Administration.

James R. Knickman, PhD, is the first president and chief executive officer of the New York State Health Foundation (NYSHealth), a private philanthropy established with resources from Empire Blue Cross Blue Shield's conversion from a nonprofit to a for-profit corporation. Prior to joining NYSHealth, Knickman was vice president of research and evaluation at the Robert Wood Johnson Foundation (RWJF) in Princeton, New Jersey. There, he was responsible for external evaluations of RWJF national initiatives, developing research initiatives, and conducting internal programmatic analyses. Throughout his 14-year tenure at RWJF, Knickman led grant-making teams in clinical care for the chronically ill, long-term care, and population health. Between 1976 and 1992, Knickman served on the faculty of New York University's Robert F. Wagner Graduate School of Public Service. He serves on a wide range of advisory boards, including as chairman of the Robert Wood Johnson Health System in New Brunswick, New Jersey, and is a past board member of AcademyHealth in Washington, DC. He has published extensively and currently is an editorial board member for *The Milbank Quarterly* and *Inquiry.* Knickman received his BA from Fordham University and his PhD in public policy analysis from the University of Pennsylvania.

Jonas and Kovner's Health Care Delivery in the United States

9 edition

Anthony R. Kovner, PhD
James R. Knickman, PhD
Editors

Steven Jonas, MD, MPH, MS
Founding Editor

SPRINGER PUBLISHING COMPANY
New York

Springer Publishing Company, LLC
11 West 42nd Street
New York, NY 10036
www.springerpub.com

Acquisitions Editor: Sheri W. Sussman
Production Editor: Julia Rosen
Cover design: Mimi Flow
Composition: Apex CoVantage

08 09 10 11/ 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data

Jonas and Kovner's health care delivery in the United States/Anthony R. Kovner, James R. Knickman, editors.—9th ed.
p. ; cm.
Rev. ed. of: Jonas & Kovner's health care delivery in the United States. 8th ed. c2005.
Includes bibliographical references and index.
ISBN 978-0-8261-2096-0 (hard cover : alk. paper)—ISBN 978-0-8261-2098-4 (soft cover : alk. paper) 1. Medical care—United States. I. Kovner, Anthony R. II. Knickman, James. III. Jonas, Steven. IV. Jonas & Kovner's health care delivery in the United States. V. Title: Health care delivery in the United States.
[DNLM: 1. Delivery of Health Care—United States. 2. Health Policy—United States. 3. Health Services—United States. 4. Quality of Health Care—United States. W 84 AA1 J68 2008]

RA395.A3H395 2008
362.10973—dc22 2007043637

Printed in the United States of America by Bang Printing.

Contents

Part III: System Performance

Tables and Figures

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 6

Chapter 7

Chapter 8

Chapter 9

Chapter 10

Chapter 12

Chapter 13

Chapter 14

Chapter 15

Chapter 16

Chapter 17

Chapter 18

Foreword

It is ironic that health care, which occupies nearly one-sixth of the U.S. economy and affects us all, sooner or later, in the most intimate and important ways, remains *terra incognita* for so many of us. It is like the vast blank spaces in maps from the Middle Ages. The boldest, strongest, most confident layperson falls silent and tiptoes in the corridors of a hospital, sometimes bowing the head as the white-coated doctors stride by. We depend on health care, but in it we feel like strangers.

Each year, I am reminded that health care is a mystery to most as I begin to teach a Harvard College undergraduate course called *The Quality of Health Care in America,* which has become one of my annual projects. Forty or 50 young people, most of them in their senior year, join my coprofessors and me in a semester-long exploration of what health care achieves and what it fails to achieve. Most of these smart, interested students are ignorant of even the most basic patterns: the flow of patients, the flow of money, and the nature of the institutions that shape care. Few can describe Medicare, and even fewer know the difference between it and Medicaid. Terms such as *primary care, chronic disease, peer review, employer-based coverage,* and *evidence-based medicine* have only the vaguest referents in their minds. Most students assume at the outset that most of medical care is effective, efficient, scientifically grounded, and safe—despite the consistent testimony to the contrary in health services research and from the National Academies of Science. The minority who have had personal experiences of care—usually at the bedside of a grandparent or unfortunate friend—can, with the slightest encouragement, surface questions, concerns, and even outrage at flaws they saw; but most of these students assume, incorrectly, that their experience was the exception in a system that generally works well.

They know that health care costs too much; after all, that's in every morning newspaper. But they don't know why. They don't know where the money comes from, where it goes, or how efficiently it is used. They know little about international comparisons in either cost or quality, and they assume, like many Americans, that we have the

best health care on Earth, which is wrong. They know that millions of us lack health insurance, but they don't know how many or why. They know that race and wealth are associated with unequal treatment and variation in health status, but they do not know how vast, unconscionable, and unnecessary those disparities are.

Some of these students will become doctors and nurses. The majority will enter other professions and callings. But, without exception, every one will encounter health care in ways that significantly affect their lives. There it will be, in the line on their paycheck stubs deducting the insurance premium and the Medicare tax; in their visits to the emergency department when they fall off their bicycles; in the answers they will seek when they or a loved one gets short of breath or loses weight; in the public debates among candidates; in the news about the labor-management negotiations; in the feature articles on fad diets; and in the editorials about malpractice reform, rationing, or the federal deficit.

Those who do become health care professionals will, of course, learn more about the system from inside. But their view, untended, will be myopic, local, and distorted. They will know that the lab report got lost, that the patients have been waiting too long, that the schedule is jammed, and that the Medicare fees got cut; but most of them won't know why any more than the laypeople do. They will be fish in water, who cannot understand water unless they get instruction.

This will not do. For a public so dependent on and concerned about the performance of health care, now and in the future, or for professionals and managers in health care so dependent on and concerned about the systems that make it possible for them to find meaning in their work, opacity about what health care is, how it works, what it comprises, and where it came from is paralyzing. It precludes reasonable expectations for change and effective action to make change. Ignorance about health care generates frustrated clinicians, angry patients, unaccountable politicians, and uninformed voters.

At its peak, the proper view—the proper knowledge—is a view of and knowledge about the system as a whole. That is neither inborn nor well-taught yet in U.S. health care. But that knowledge base is an essential precondition for progress.

This is what makes this textbook such a treasure. It is in very small company among available explications of the nature, components, history, stakeholders, dynamics, achievements, and deficiencies in a system of gigantic size and equally gigantic complexities. The editors are world-class scholars, and they have organized the writing of an equally distinguished squad of contributors. In their hands, many of the mysteries of health care dissolve into orderly and clear frameworks, and the most important dynamics become visible.

Making health care in the United States become what it should become is too important and too difficult a job to be left to any one stakeholder, profession, institution, or change agent. It affects all of us, and, somehow, sometime, we will need to find the will to act in concert to rebuild it—laypeople and professionals, hospitals and ambulatory care, payers and consumers, executives and the workforce, and more. Concerted effort will have to begin on a foundation of clear knowledge of the system we will work to change, and, to gain that knowledge, few resources are as valuable as the masterful and sweeping overview that these pages contain.

Donald M. Berwick, MD, MPP
President and CEO, Institute for Healthcare Improvement

Organization of This Book

This text, *Jonas and Kovner's Health Care Delivery in the United States,* 9th edition, is organized into five parts: **Perspectives, Providing Health Care, System Performance, The Future,** and **Appendices.** The titles of these five parts can be formulated as answers to the following questions: How do we understand and assess the health care sector of our economy? Where and how is health care provided? How well does the health care system perform? Where is the health care sector going in terms of the health of the people, the cost of care, access to care, and quality of care? And what else do we need to know to answer the four previous questions?

Part I, Perspectives, is divided into an overview with supplemental charts and chapters on measuring health status, financing health care, public health, the role of government, and a comparative analysis of health systems in wealthy countries. Part II, Providing Health Care, contains chapters on acute care, chronic care, long-term care, health-related behavior, pharmaceuticals and medical devices, the workforce, and information management.

Part III, System Performance, includes chapters on governance, management, and accountability; health care quality; access to care; and costs and value. Part IV, The Future, projects what health care in the United States will look like over the short term. Three appendices in Part V contain a glossary, a guide to sources of data, and a list of useful health care Web sites.

This edition also includes an Instructor's Guide accessible online or in print for Professors' use only.

You can email the authors with any questions or comments:

Tony Kovner: anthony.kovner@nyu.edu

Jim Knickman: knickman@nyshealth.org

Acknowledgements

We would like to dedicate this book to the American people who deserve a better health care delivery system. Although millions of Americans experience wonderful care and treatment from health care providers every day, Americans deserve better health outcomes of more even quality at lower cost, and we must increasingly take ownership of our own health care. We believe that the system can—and must—change soon (this is written in 2008) through a more sensible financing system, which is what Steve Jonas said when he wrote the first edition of this book, more than 30 years ago!

Bringing this book to our readers was a considerable management job, involving the efforts of numerous individuals. First, of course, are our 32 other chapter authors, some of whom have been with us for many editions and some who are writing chapters for the first time in this 9th edition. These authors are: Victoria Weisfeld, Mary Ann Chiasson, Steven Jonas, Kelly Hunt, Laura Leviton, Scott Rhodes, Carol Chang, Michael Sparer, Victor Rodwin, Marc Gourevitch, Carol Caronna, Gary Kalkut, Gerald Anderson, Penny Feldman, Pamela Nadash, Michal Gursen, Tracy Orleans, Elaine Cassidy, Robin Strongin, Ron Geigle, Victoria Wicks, Carol Brewer, Thomas Rosenthal, Roger Kropf, Bonnie Wakefield, Douglas Wakefield, John Billings, Joel Cantor, Steven Finkler, Thomas Getzen, Jennifer Nelson, and Kelli Hurdle.

Vicki Weisfeld deserves extra credit and gets extra thanks for her remarkable efforts to improve the quality of this book. Note in particular the "Supplement: Key Charts" chapter, new to this edition, which pulls together basic information on a number of subjects that cut across many of the other chapters. Vicki edited each chapter, as we made a major effort to enforce a more standardized format for chapter authors, some of whom did not appreciate her efforts as much as we did. Vicki is a wonderful and kind human being of the highest integrity, and is dedicated to improving our health care system and making it more understandable.

We also wish to thank our talented and experienced editor, Sheri Sussman, for staying with this project from start to finish and for

working with us, to make this edition the best ever, particularly for the improvements in the way it looks.

We thank our spouses Terri Clark and Chris Kovner for putting up with us and supporting our hard work. We also thank our children—Annie Knickman, Sarah and Anna Kovner, and our grandchildren, Zack and Ava Rose Meisel—for lighting up our life.

We acknowledge also our own deep and loving friendship. Producing this book, despite some frustrations, has never disturbed the fun and joy we have working together.

Tony Kovner
Jim Knickman
April 2008

Contributors

Gerard F. Anderson, PhD, is a professor of health policy and management and professor of international health at the Johns Hopkins University Bloomberg School of Public Health, professor of medicine at the Johns Hopkins University School of Medicine, director of the Johns Hopkins Center for Hospital Finance and Management, and codirector of the Johns Hopkins Program for Medical Technology and Practice Assessment. He recently stepped down as the national program director for the Robert Wood Johnson Foundation sponsored program Partnership for Solutions: Better Lives for People With Chronic Conditions. Anderson is currently conducting research on chronic conditions, comparative insurance systems in developing countries, medical education, health care payment reform, and technology diffusion. He has directed reviews of health systems for the World Bank and USAID in multiple countries. He has authored 2 books on health care payment policy, published over 200 peer-reviewed articles, testified in Congress over 35 times as an individual witness, and serves on multiple editorial committees. Prior to his arrival at Johns Hopkins, Anderson held various positions in the Office of the Secretary, U.S. Department of Health and Human Services, where he helped to develop Medicare prospective payment legislation.

Donald M. Berwick, MD, MPP, is president, CEO, and cofounder of the Institute for Healthcare Improvement in Boston, Massachusetts. Dr. Berwick is a clinical professor of pediatrics and health care policy at the Harvard Medical School, and a pediatrician. An associate in pediatrics at Boston's Children's Hospital, he is also a consultant in pediatrics at Massachusetts General Hospital. Dr. Berwick is the author of *Escape Fire: Designs for the Future of Health Care* and coauthor of the book, *Curing Health Care and New Rules.*

John Billings, JD, is associate professor of health policy and public service at New York University, teaching in the area of health policy. He is principal investigator on numerous projects to assess the performance of the safety net for vulnerable populations and to understand

the nature and extent of barriers to optimal health for vulnerable populations. Much of his work has involved analysis of patterns of hospital admission and emergency room visits as a mechanism to evaluate access barriers to outpatient care and to assess the performance of the ambulatory care delivery system. He has also examined the characteristics of high-cost Medicaid patients to help in designing interventions to improve care and outcomes for these patients. As a founding member of the Foundation for Informed Decision Making, Billings is helping to provide patients with a clearer mechanism for understanding and making informed decisions about a variety of available treatments.

Carol S. Brewer, PhD, is an associate professor at the University at Buffalo School of Nursing and director of nursing at the New York State Area Health Education Center Statewide System. She has conducted nursing workforce research for over 13 years and has published and presented widely. Her current research uses her model of workforce participation to study the work participation of newly licensed registered nurses. This model accounts for Metropolitan Statistical Area differences and attitudes such as satisfaction and work family conflict. Her past research has utilized both secondary and primary data collection to examine a variety of nursing workforce issues. She has also conducted research focusing on the New York State supply of nurses and is responsible for the strategic planning for nursing workforce programs for the New York State Area Health Education Center (NYS AHEC) System. The NYS AHEC System focuses on recruiting, educating, and retaining the health care workforce for rural and underserved populations. Brewer also teaches graduate students about quantitative research methods and health care systems, policies, and ethics. She received her undergraduate degrees from Denison University (biology), Trenton State College (nursing), and a master's degree in nursing from the University of Knoxville, a master's degree in applied economics from the University of Michigan, and a PhD from the University of Michigan in nursing systems.

Joel C. Cantor, ScD, is director of the Center for State Health Policy and professor of public policy at Rutgers University. Cantor's research focuses on issues of health care regulation, financing, and delivery. His recent work includes studies of health insurance market regulation, access to care for low-income and minority populations, the health care safety net, and the supply of physicians. Cantor has published widely on health policy topics and serves on the editorial board of the policy journal *Inquiry.* Cantor serves frequently as an advisor on health policy matters to New Jersey state agencies; he currently serves as a member of the Governor's Commission on Rationalizing New Jersey's Health Care

System and chairs the New Jersey Mandated Health Benefit Advisory Commission. Prior to joining the faculty at Rutgers, Cantor served as director of research at the United Hospital Fund of New York and director of evaluation research at the Robert Wood Johnson Foundation. He received his doctorate in health policy and management from the Johns Hopkins University School of Hygiene and Public Health in 1988.

Carol A. Caronna, PhD, is an assistant professor in the Department of Sociology, Anthropology, and Criminal Justice at Towson University. She did her graduate work in sociology at Stanford University and, from 2000 to 2002, was a Robert Wood Johnson Scholar in Health Policy Research at the University of California, Berkeley School of Public Health (in collaboration with the University of California, San Francisco). Her work focuses on entrepreneurship, organizational identity, and institutional theory, with specific projects on the evolution of the health maintenance organization as an organizational form; mergers of secular and religious hospitals; and entrepreneurship in the nonprofit sector. In addition to being the coauthor of *Institutional Change and Healthcare Organizations: From Professional Dominance to Managed Care* (2000), she has published articles in *Social Science and Medicine, Journal of Health and Social Behavior,* and *Research in the Sociology of Organizations.*

Elaine F. Cassidy, PhD, is a program officer in research and evaluation at the Robert Wood Johnson Foundation, where she manages research and evaluation activities for the Vulnerable Populations portfolio. She also has been involved in grant-making for the Pioneer portfolio and the Addiction Prevention and Treatment targeted team. Her work and interests focus primarily on adolescent health and risk behaviors and on school-based interventions, particularly for children and adolescents living in low-income, urban environments. She is a former school psychologist and trained mental health clinician, who has provided therapeutic care to children and families in school, outpatient, and acute partial hospitalization settings. She holds a BA in psychology and liberal studies from the University of Notre Dame, an MSEd in psychological services from the University of Pennsylvania, and a PhD in school, community, and child-clinical psychology from the University of Pennsylvania.

Carol S. Chang, MPA, MPH, is a senior program director at the American Red Cross of Central New Jersey, where she oversees the chapter's emergency services, community services, and health and safety departments. Chang was formerly a program officer at the Robert Wood Johnson Foundation, where she worked with the public health team to develop and implement strategies to improve the performance,

accountability, and visibility of governmental public health departments. Chang formerly worked with CARE-International to improve the food security of populations in Africa, Asia, Latin America, and the Caribbean. She earned MPH and MPA degrees from Columbia University.

Mary Ann Chiasson, DrPH, is an epidemiologist who joined the Medical and Health Research Association (MHRA) of New York City in 1999 as vice president for research and evaluation. MHRA is a not-for-profit organization that provides health and health-related services, conducts demonstration and research programs, and offers management services in order to improve community health and strengthen health policy. Before joining MHRA, Chiasson served for 9 years as an assistant commissioner of health at the New York City Department of Health with scientific and administrative responsibility for AIDS surveillance, AIDS research, and vital statistics and epidemiology. Chiasson's research interests include HIV transmission, women's reproductive health, and infant mortality. Her current research focuses on the Internet and high-risk sexual behavior among men who have sex with men. Chiasson is an associate professor of clinical epidemiology (in medicine) at the Mailman School of Public Health, Columbia University.

Penny Hollander Feldman, PhD, is vice president for research and evaluation at the Visiting Nurse Service of New York (VNSNY) and director of the VNSNY Center for Home Care Policy and Research. As center director, she leads projects focused on improving the quality, outcomes, and cost-effectiveness of home-based care, supporting informed policy making by long-term care decision makers, and helping communities promote the health, well-being, and independence of people with chronic illness or disability. Prior to joining VNSNY, Feldman served on the faculties of the Kennedy School of Government and the Department of Health Policy and Management at the Harvard School of Public Health, and she is currently associate professor in the Department of Public Health at Weill Medical College of Cornell University. The author of numerous publications, Feldman also has served on a variety of national committees shaping health care policy and practice, including the Institute of Medicine Committee on Improving the Quality of Long Term Care.

Steven A. Finkler, PhD, is professor emeritus of public and health administration, accounting, and financial management. He served for over 20 years as director of the specialization in health care financial management at New York University's Robert F. Wagner Graduate School of Public Service. He is an award-winning teacher and author.

He received a BS with joint majors in finance and accounting and an MS in accounting from the Wharton School at the University of Pennsylvania. His MA in economics and PhD in business administration were awarded by Stanford University. Finkler, who is also a CPA, worked for several years as an auditor with Ernst and Young and was on the faculty of the Wharton School before joining New York University. Among his publications are 18 books, including *Essentials of Cost Accounting for Health Care Organizations,* 3rd edition (with David Ward and Judith Baker), *Accounting Fundamentals for Health Care Management* (with David Ward), and *Financial Management for Public, Health, and Not-for-Profit Organizations* (2nd edition). He has published more than 200 articles in many journals, including *Hospitals and Health Services Administration, Healthcare Financial Management, Health Care Management Review, Health Services Research,* and the *New England Journal of Medicine.*

Ron Geigle is a strategist and communications expert on health policy issues, focusing on medical technology. In 1999, he founded Polidais, a policy analysis and public affairs company in Washington, DC, that provides research, policy positioning, and public affairs services for clients in the fields of health care, science, and technological innovation. Previously, Geigle served as the vice president of policy communications for the Advanced Medical Technology Association (AdvaMed). Prior to joining AdvaMed, he worked as a press secretary and legislative assistant in the U.S. Senate and House of Representatives and as a speechwriter for the chairman of a federal agency. He is a graduate of Harvard University and the University of Washington in Seattle.

Thomas E. Getzen, PhD, is professor of risk, insurance, and health management at the Fox School of Business, Temple University, and is executive director of iHEA, the International Health Economics Association, with 2,400 academic and professional members in 72 countries. He has also served as visiting professor at the Woodrow Wilson School of Public Policy at Princeton University, the Wharton School of the University of Pennsylvania, and the Centre for Health Economics at the University of York. His textbook *Health Economics: Fundamentals and Flow of Funds* (3rd edition, 2007) is used in graduate and undergraduate programs throughout the world. Getzen serves on the board of Catholic Health East, the ninth largest health care system in the United States, and on several other corporate and nonprofit boards. His research focuses on the macroeconomics of health, forecasting medical expenditures and physician supply, price indexes, public health economics, and related issues. Currently Getzen is at work on a model of long-term medical cost trends for use by the Society of Actuaries.

Marc N. Gourevitch, MD, MPH, is professor of medicine at the New York University (NYU) School of Medicine, where he is director of the Division of General Internal Medicine. Gourevitch's central research interests include integrating substance abuse care into general medical settings; defining system-congruent strategies for fostering behavior change and behavior-related chronic disease care; clinical epidemiology among drug users and other underserved populations; and pharmacologic treatments for opioid and alcohol dependence. He leads NYU School of Medicine's Fellowship in Medicine and Public Health Research, dedicated to enabling fellows and junior faculty to develop applied research skills to bring about advances in population health. Gourevitch received his medical degree from Harvard Medical School and completed his internship and residency in primary care internal medicine at Bellevue Hospital and the NYU School of Medicine.

Michal D. Gursen, MPH, MS, is a research analyst at the Center for Home Care Policy and Research at the Visiting Nurse Service of New York. At the center, Gursen works primarily on two projects: the AdvantAge Initiative and the Health Indicators in NORC Programs Initiative. Before coming to the center, she worked at the New York State Psychiatric Institute, where she studied psychoeducational interventions for people with mental illness. Prior to that, Gursen worked at Mount Sinai School of Medicine, where she researched psychosocial pathways leading to drug use. Gursen received her MPH in health policy and management with a concentration in effectiveness and outcomes research and an MS in social work from Columbia University. She holds a BA in psychology from Barnard College.

Kelly A. Hunt, MPP, is a senior program director at the New York State Health Foundation and has more than 14 years of experience that includes developing, managing, and funding health care policy analyses. As a research and evaluation officer at the Robert Wood Johnson Foundation (RWJF), she led the team responsible for the organization's Scorecard, an annual assessment of RWJF's impact; she was a member of a team developing a strategy to reduce racial and ethnic disparities in health care; and she oversaw demonstration programs to expand health insurance coverage, monitored a portfolio of health services research grants, and played a lead role in ensuring that the impact of RWJF's grant-making was carefully measured and disseminated. Previously, Hunt was a health and welfare consultant at Towers Perrin in New York City and a senior consultant at KPMG Peat Marwick. She is a coauthor on numerous health services research articles that have appeared in journals such as *Health Affairs, Health Services Research,* and *The Milbank Quarterly.* She holds a master's degree in public policy from Georgetown University.

Kelli A. Hurdle, MPA, is the associate director for clinical services in the Medicine Service Department at Bellevue Hospital Center. Her work centers on the development and evaluation of quality improvement and patient safety initiatives in the department. Before joining Bellevue in August 2005, Hurdle was a research assistant at New York University's Center for Health and Public Service Research. Prior to that, she worked at Cicatelli Associates, Inc., assisting health care organizations with program development and expansion, operations improvement, and capacity building. She received an MPA from the Robert F. Wagner Graduate School of Public Service at New York University and a BS degree from Villanova University.

Steven Jonas, MD, MPH, MS, is professor of preventive medicine, School of Medicine, and professor, Graduate Program in Public Health, at Stony Brook University (New York). He is a fellow of the American College of Preventive Medicine, the New York Academy of Medicine, the New York Academy of Sciences, and the American Public Health Association. He is editor-in-chief of the *American Medical Athletics Association Journal.* 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 over 25 books and has published more than 135 papers in scientific journals, as well as numerous articles in the popular literature. It was in the mid-70s that, having been given the opportunity to do so by Dr. Ursula Springer, he created *Health Care Delivery in the United States.*

Gary E. Kalkut, MD, MPH, is the vice president and senior medical director of Montefiore Medical Center in the Bronx, New York. Kalkut provides institutional clinical leadership for Montefiore's integrated delivery system that includes three hospitals with 1,100 beds and an ambulatory system with over two million visits in 2006, including 210,000 emergency department visits. He is also the chief medical officer of the Care Management Organization, which manages Montefiore's risk contracts. Kalkut is an infectious diseases physician and former medical director of the adult AIDS program at Montefiore. He received his medical degree at the Boston University School of Medicine and did his residency in internal medicine and fellowship in infectious diseases at Montefiore.

Roger Kropf, PhD, is a professor in the Health Policy and Management Program at New York University's Robert F. Wagner Graduate School of Public Service. Kropf is the author of three books on the application of information systems to health care management: *Strategic Analysis for Hospital Management* (with James Greenberg, 1984), *Service*

Excellence in Health Care Through the Use of Computers (1990), *Making Information Technology Work: Maximizing the Benefits for Health Care Organizations* (with Guy Scalzi, 2007). His current research is on how managers measure the benefits of health care information technology before approval, manage projects to assure they are on time and within budget, and obtain the desired benefits after implementation.

Laura C. Leviton, PhD, is a senior program officer of the Robert Wood Johnson Foundation in Princeton, New Jersey, and was a professor at two schools of public health. She collaborated on the first randomized experiment on HIV prevention and on two place-based experiments to improve medical care. In 1993, the American Psychological Association recognized her for distinguished contributions to psychology in the public interest. She has served on two Institute of Medicine committees dealing with public health topics and was appointed to the National Advisory Committee on HIV and STD Prevention of the Centers for Disease Control and Prevention. Leviton was president of the American Evaluation Association in 2000 and has coauthored two books: *Foundations of Program Evaluation* and *Confronting Public Health Risks.* She received her PhD in social psychology from the University of Kansas and postdoctoral training in research methodology and evaluation at Northwestern University.

Pamela Nadash, PhD, has most recently been a senior research associate at the Thomson Medstat Group, responsible for developing design options for a consumer-directed Medicare home health benefit and authoring papers highlighting promising practices in Medicaid home- and community-based services. She has also held research positions at the Center for Home Care Policy and Research at the Visiting Nurse Service of New York and at the National Council for the Aging. She is completing her PhD in public health and political science at Columbia University, conducting quantitative analyses of integrated and Medicaid-only managed long-term care programs.

Jennifer A. Nelson, MPH, is a biostatistician in the community epidemiology branch of the County of San Diego Health and Human Services Agency. She is a graduate of the Center for Population and Family Health at the Joseph L. Mailman School of Public Health of Columbia University. Before her work on communicable disease and vital statistics surveillance for the County of San Diego, she was a research associate in the Research and Evaluation Unit at the Medical and Health Research Association of New York City, Inc., where she worked on research projects relating to childhood obesity, reproductive health, and maternal and child health. Previous experience includes policy

research at the National Center for Children in Poverty, health education and clinical assistance at a Planned Parenthood center, and health and nutrition education at a rural health clinic in West Africa as a Peace Corps volunteer.

C. Tracy Orleans, PhD, is senior scientist of the Robert Wood Johnson Foundation (RWJF). She has led or coled the foundation's public policy– and health care system–based grant-making in the areas of tobacco control, physical activity promotion, childhood obesity prevention, and chronic disease management. She led the foundation's health and behavior team and has developed and/or managed numerous RWJF national initiatives, including Addressing Tobacco in Health Care, Smoke-Free Families, Helping Young Smokers Quit, Bridging the Gap/Impact Teen, Substance Abuse Policy Research, Improving Chronic Illness Care, Prescription for Health, Active Living Research, and Healthy Eating Research. An internationally known clinical health psychologist, Orleans has authored or coauthored over 200 publications and has served on numerous journal editorial boards, national scientific panels, advisory groups (e.g., Institute of Medicine, National Commission on Prevention Priorities, U.S. Preventive Services Task Force), and as president of the Society of Behavioral Medicine.

Scott D. Rhodes, PhD, MPH, CHES, is associate professor in the section on health and society in the Department of Social Sciences and Health Policy, Division of Public Health Sciences, and in the section on infectious diseases in the Department of Internal Medicine. He also is an affiliate faculty of the Maya Angelou Research Center on Minority Health at Wake Forest University Health Sciences in Winston-Salem, North Carolina. Rhodes's research explores sexual health, HIV, and sexually transmitted disease prevention, obesity prevention, and other health disparities among vulnerable communities. Rhodes has extensive research experience with self-identifying gay and bisexual men and men who have sex with men; Latino immigrant communities; urban African American adolescents; persons living with HIV/AIDS; and men of color. He has broad experience in the design, implementation, and evaluation of multiple-level interventions; community-based participatory research; exploratory evaluation; the application of behavioral theory; lay health advisor interventions; sociocultural determinants of health; and Internet research.

Victor G. Rodwin, PhD, MPH, is professor of health policy and management at the Robert F. Wagner Graduate School of Public Service, New York University (NYU), and codirector (with Michael K Gusmano) of the World Cities Project, a joint venture of the Wagner School, NYU,

the International Longevity Center-USA, and the Mailman School, Columbia University. Rodwin has written five books: *The Health Planning Predicament: Quebec, England, France and the U.S.* (1984), *The End of an Illusion: The Future of Health Policy in Western Industrialized Nations* (1984), *Public Hospital Systems in New York City and Paris* (1992), *Japan's Universal and Affordable Health Care: Lessons for the U.S.* (1994), and *Growing Older in World Cities: New York, London, Paris and Tokyo* (2006). Recent articles discuss French national health insurance and reform; infant mortality and income in four world cities; treatment of heart disease in these cities; and, most recently, avoidable hospital conditions in Manhattan and Paris, a study that illustrates a new approach to the comparative analysis of health systems. A member of the National Academy of Social Insurance since 1998, Rodwin received his MPH in social and administrative sciences and his PhD in city and regional planning from the University of California, Berkeley.

Thomas C. Rosenthal, MD, is professor and chair of the Department of Family Medicine at the University at Buffalo. He has been involved in health planning and workforce issues as a member of the New York State Rural Health Council and several committees of the Medical Society of the State of New York, including a task force to eliminate health disparities. He is the director of the New York State Area Health Education Center System and editor of the *Journal of Rural Health.* Rosenthal has published over 60 peer-reviewed articles and several monographs, and he edits a geriatric textbook, *Office Care Geriatrics.*

Michael S. Sparer, PhD, JD, is a professor of health policy at the Joseph L. Mailman School of Public Health at Columbia University. He spent 7 years as a litigator for the New York City Law Department, specializing in intergovernmental social welfare litigation. After leaving the practice of law, Sparer obtained a doctorate in political science from Brandeis University. Sparer is the editor of the *Journal of Health Politics, Policy and Law* and the author of *Medicaid and the Limits of State Health Reform,* as well as numerous articles and book chapters. In his writings, Sparer examines the politics of the U.S. health care system, with a particular emphasis on the nation's health insurance system as well as the ways in which federalism shapes policy.

Robin J. Strongin, MPA, a partner with Polidais LLC, brings 25 years of experience in health care policy, legislative analysis, and public relations. Prior to joining the firm in 2000, she was a senior research associate with the National Health Policy Forum at George Washington University. She formerly served as acting executive director and direc-

tor of research for the Health Care Technology Institute. Her previous tenures with health and policy organizations include the National Leadership Coalition on Health Care and the Prospective Payment Assessment Commission (now the Medicare Payment Advisory Commission). She was selected as a presidential management intern and worked in the Office of Legislation and Policy of the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services), in addition to serving in the Office of Congressman James J. Florio (D-NJ).

Bonnie J. Wakefield, PhD, RN, is director of health services research and development at the Harry S. Truman Memorial Veterans' Hospital in Columbia, Missouri. She holds appointments as associate research professor in the Schools of Nursing and Medicine at the University of Missouri. Wakefield's previous experience includes work as a staff nurse in critical care and development and implementation of successful staff development, patient education, and quality improvement programs in acute care settings. Her program of research focuses on patient safety in acute care settings and application of innovative telehealth strategies to improve health care delivery. She has completed two randomized controlled trials using home telehealth in patients with heart failure and comorbid diabetes and hypertension. She received her BSN from Bradley University and a PhD from the University of Iowa.

Douglas S. Wakefield, PhD, is director of the University of Missouri-Columbia Center for Health Care Quality and professor in the Department of Health Management and Informatics. He previously served as professor and head of the University of Iowa Department of Health Management and Policy from 1996 to 2005. His research interests are in patient care quality, safety, and value improvement. Wakefield's research has been funded from a variety of sources, including Agency for Healthcare Research and Quality (AHRQ), Health Resources and Services Administration, Robert Wood Johnson Foundation, Northwest Area Foundation, John Deere Health Foundation, and the Veterans Administration. Recently funded research includes three grants from AHRQ in which he is leading evaluations of the implementation of electronic health systems and computerized provider order entry systems in hospitals and is a co-investigator examining the value of health information technologies in rural settings.

Victoria Weisfeld, MPH, is a principal in NEW Associates, a strategic planning and communications consulting firm whose national clients include think tanks, foundations, and nonprofit organizations.

She combines her academic training in public health and journalism by helping health care organizations develop social marketing programs and disseminate information more effectively. An end-of-life communications program she developed, Last Acts, won the Public Relations Society of America's highest award. She also has developed and managed award-winning communications programs in community radio and public television outreach. She is a past president of the Communications Network in Philanthropy. Major employers were the Robert Wood Johnson Foundation in Princeton, New Jersey, and the Institute of Medicine in Washington, DC, where she wrote the initial draft of the seminal public health planning document, *Healthy People*. She serves on the board and advisory committees of several media organizations, as well as Family and Children's Services of Central New Jersey.

Victoria A. Wicks, MBA, is associate vice president of public policy for Sanofi-Aventis Pharmaceuticals. Wicks began her health care career in the managed care industry, holding positions in pricing, operations, product development, and medical affairs before becoming the senior vice president of marketing and sales for HIP, a 900,000-member plan in New York, then president and chief executive officer of a HIP Health Plan of New Jersey. She made the transition to the pharmaceutical sector at Roche Labs in marketing before moving to Aventis, now Sanofi-Aventis, in public policy. Wicks earned a BA from Bates College, Lewiston, Maine, where she currently serves on the board of trustees. She also received an MBA from the University of Massachusetts and has completed the Advanced Management Program at the Wharton School of the University of Pennsylvania.

PART ONE

Perspectives

1

Key Words

health care delivery
quality improvement
financing
access to care
health technology
public health
healthy behavior
social determinants of health
health insurance
interest groups
market forces
health workforce
engagement
stakeholders

Overview: The State of Health Care Delivery in the United States

James R. Knickman and Anthony R. Kovner

Learning Objectives

- Understand defining characteristics of the U.S. health care system.
- Identify issues and concerns with the current system.
- Understand the dynamics that influence efforts to improve the system.
- Recognize the importance of engagement of stakeholders to the prospects of improving U.S. health care.

Topical Outline

- The importance of health and health care to American life
- Defining characteristics of the U.S. health care system
- Major issues and concerns facing the health sector
- Constraints that make change difficult in health delivery
- The key importance of leadership for a strong health care system

In this initial chapter, we present an overview of the U.S. health care delivery system. To set the stage for the in-depth looks at key aspects and components of the system in the chapters to follow, this overview describes the distinguishing characteristics of our health care system and how it is organized to meet the needs of 301 million Americans. It introduces the key challenges that face leaders of the health sector as they try to make it an ever-improving enterprise. And it discusses the social context shaping health care in the United States. A central theme is that efforts to improve the system require the engagement of stakeholders: frontline doctors and nurses, middle-level managers, patients, and consumers.

The health enterprise is one of the most important parts of the U.S. social system. Our nation cannot be strong or wealthy and citizens cannot lead fully productive lives without good health (Figure 1.1S in supplemental section at the end of this chapter). Each of us has helped loved ones face significant health challenges. We all know how "life as we know it" stands still in the face of a life-threatening or an activity-limiting illness. Most of us would sacrifice almost anything to restore the health of a loved one; some of us are willing to pay higher taxes to make sure that all Americans—friends, relatives, neighbors, strangers—have the health care services they need.

This special significance of health in our lives makes careers in the health sector so important and so attractive. People interested in the health sector have the chance to benefit people directly, while working to improve the operations of a complex social enterprise. The service sector is one of the fastest growing parts of the U.S. economy, and health services are perhaps its most challenging and interesting component.

Defining Characteristics of the U.S. Health Care System

The health care system in the United States encompasses a sprawling set of activities and enterprises. Using the word *system,* in fact, is a stretch, because in many ways the enterprise involves many actors working nonsystematically to achieve diverse aims. But, like the "hidden hand" that economists claim guides our general

economic system, many fundamental forces keep individual actors working somewhat in tandem to produce and maintain health in our population.

Perhaps the first defining characteristic of the health enterprise is the distinction between activities directed at keeping people healthy and activities directed at restoring health once a disease or injury occurs. Keeping people healthy is the domain of the public health care system and the activities associated with behavioral health (Figure 1.2S). Public health (described in chapter 4) involves activities that work at the population level to keep us healthy: protecting the environment, making sure water supplies and restaurants and food are safe, and providing preventive health services, for example. Behavioral health (described in chapter 10) focuses on helping people make behavioral choices that improve or protect health: for example, not smoking, eating well, exercising, and reducing stress.

Once people become ill, the medical care sector takes over and delivers a wide variety of services and interventions to restore health. All too often, the medical care part of the system—which dwarfs the public health and behavioral health parts—ignores its potential to promote and maintain health (Figures 1.3S and 1.4S). One perplexing part of our health sector is that changing an individual's behavior has much greater impact on health and mortality than does spending money on medical care. Despite excellent research evidence documenting the importance of healthy lifestyles, we spend nine times more on medical care than on public health and behavioral health.

Additional defining features of the U.S. health care system include:

1. the importance of **institutions** in delivering care. Hospitals, nursing homes, community health centers, physician practices, and public health departments all are complex institutions that have evolved over the past century to meet various needs (discussed in chapters 7, 8, and 9). Each type of institution has its traditions, strengths, weaknesses, and a defined role in the health enterprise.
2. the role of **professionals** in running the system. Many different types of professionals make the system work, and each type has distinct roles (discussed in chapters 12 and 14). Physicians, nurses, administrators, policy leaders, researchers, technicians of many types, and business leaders focused on technology and pharmaceuticals all play essential roles.
3. developments in **medical technology, electronic communication,** and **new drugs** that fuel changes in service delivery. Over

the past 20 years, advances in technology and technique have exploded, making it possible to aggressively intervene to restore health in ways that were not dreamed of a generation ago (discussed in chapters 11 and 13). New techniques in imaging, electronic communication, pharmaceuticals, and surgical procedures are remarkable. These advances, however, have added costs to the system and have made health care unaffordable for a growing percentage of the U.S. population.

4. tension between "**caring**" and "**big business**" that shapes the system's culture. Americans are divided about whether they want a health care system that is more a social good, run by nonprofit organizations with benevolent missions, or whether they want health care to operate more like a big business, driven by market forces, profits, and efficiency. Many of the people who choose health care as a career are motivated at least in part by the potential to be a caring person. Yet, driving the system are many for-profit corporations—from pharmaceutical companies to medical device manufacturers, to insurance companies, to for-profit hospitals and nursing homes. Salaries are relatively high in the health sector, especially for physicians, administrators, and corporate executives. Although money clearly is an important shaper of the system, Americans want the caring aspect of health care to be central when they need services.
5. the dysfunctional **financing** and **payment** system. The U.S. health care system is expensive to maintain; we spent $1.988 trillion on health care in 2005—one out of every six dollars spent in the economy (discussed in chapter 3). Most people have health insurance to pay for services when they become ill, but some 45 million Americans do not. These uninsured (and the substantial number of underinsured) face tremendous financial risk if they become ill or injured. In addition, the way hospitals, physicians, and other providers are paid has become very complex because of the role of insurance. Remarkably, efficient, effective care is not rewarded. For example, fee-for-service payment systems reward unnecessary diagnostic tests and treatments; further, there is almost no reimbursement incentive for providers to adopt electronic communication or implement electronic patient records (discussed in chapter 13).

These defining characteristics make the health care system a dynamic part of our lives, a key part of our economy, and a constant source of contention in our political system (discussed in chapter 5). Addressing the challenges of this system is worth the effort and deserves the attention of the best and brightest of each generation.

Major Issues and Concerns

The defining characteristics of the health sector, described above, suggest the key challenges that have been the focus of health care leaders' attention in recent years. Briefly, they are:

1. **Improving quality:** Despite the large investments we make in the health care system, serious concerns about the quality of care have emerged in recent years (discussed in chapter 15 and shown in Figure 1.5S). Reliable studies indicate that between 44,000 and 98,000 Americans die each year because of medical errors. Other well-regarded studies show that fewer than half of people with mental health or substance abuse problems, asthma, or diabetes receive care known to be effective. Too often providers do not seem to have the knowledge or information they need to prescribe the correct treatment for their patients, even those with definite diagnoses. At times, people become lost in the large, cumbersome system we have constructed and do not receive the care they need. At other times, the lack of coordination between providers means that people receive duplicative and even counterproductive services.
2. **Improving access and coverage:** Too many Americans are uninsured, making care virtually unaffordable if they have a serious illness (discussed in chapter 16). People fail to get insurance coverage for many reasons, and political consensus about how to resolve this problem has not emerged over the past 20 years. Lack of coverage, however, is a peculiarly American problem. All other developed countries have public systems of insurance coverage or similar approaches to assuring that everybody can have the care they need (discussed in chapter 6). Many health leaders see the insurance challenge as the most important health issue facing our nation today. But even when people have insurance coverage, access to health care is not always easy. Many rural areas have shortages of health care professionals—especially doctors and dentists—and some services—especially specialist care, long-term care, and even hospital care (Figure 1.6S). Some services, such as mental health care, are woefully underfunded (Figure 1.7S). Immigrants face language barriers to getting effective care, and low-income groups, even when covered by public insurance programs, have a difficult time finding the services they need. As the country becomes more diverse, these types of access problems will become more acute (Table 1.1S).
3. **Keeping costs under control:** Expenditures on health care have been increasing much more quickly than expenditures in

the balance of the economy over the past 30 years (discussed in chapter 17). The explosion of expensive technology, the aging of the population, inflating salaries, and the growing prevalence of chronic conditions have made health care less and less affordable over time (Figure 1.8S). A key challenge is determining which new technology we can afford (and is worth the cost) and how to keep costs from growing too quickly. Cost increases clearly are at the heart of the access and coverage challenges outlined above. Unfortunately, leaders have not identified effective ways to keep costs under control. Reining in health care inflation remains one of the key challenges of the next 10 years—and not just for health care managers. The problem has become so acute that every sector of the U.S. economy has to be concerned about the impact of rising health care costs.

4. **Encouraging healthy behavior:** Avoiding illness and injury is the best way to keep health costs under control. Healthy behavior choices can help people avoid disease and injury. Using seat belts, getting preventive services, eating well, exercising, avoiding tobacco, and not using drugs or overusing alcohol are all central to health maintenance. It remains a challenge, however, to encourage healthy behavior. Most noticeably, we are in the middle of a disturbing obesity epidemic that has led to ever-increasing rates of diabetes and heart disease.
5. **Improving the public health care system:** We too often take for granted the safety of our water, food, and restaurants. And we fail to recognize the important roles the public health care system can play in preventive health, health education, environmental health, and prevention of bioterrorism. Perhaps because public health, when done effectively, is invisible (it *avoids* problems rather than fixes them), the United States has historically underinvested in public health. Making the case for better public health, providing adequate funding, and inspiring leading thinkers to take up public health careers is an ongoing challenge.
6. **Addressing social determinants of health:** Substantial inequalities in health status—rates of disease and death—exist across income groups, social classes, and ethnic groups. Given that most Americans believe we should have an equal opportunity approach to health maintenance, inequalities in health status are a key current challenge facing the health sector. In essence, however, the health care system can only help address inequalities to a certain degree. Some of the inequality is driven by social factors such as poverty and ineffective education systems.
7. **Strengthening the health workforce:** Recent years have seen acute shortages of nurses, primary care physicians, and long-term care providers (discussed in chapter 12). The health care system

must train and recruit the large and diverse cadre of workers that are needed to run health institutions. And *diverse* not only describes the number of roles within health care, but also the goal of achieving more ethnic and racial diversity in the workforce. Without talented and caring people agreeing to devote their careers to health services, the system cannot function.

8. **Encouraging more realistic expectations:** Consumers should expect and demand better quality and better efficiency from the delivery system. People also should recognize that their health is, to some degree, their own responsibility. To make this point, some analysts recommend that people should have to pay out of pocket for health problems caused by their own recklessness and should be rewarded for good health behavior. Some insurance companies already do this, offering lower premiums to people who do not smoke, are not obese, and have good driving records.

Prospects for Change and Improvement

Will the next generation of health care leaders make progress on the challenges facing the 21st-century health care system? Or will the system continue to provide excellent care to some and inefficient, ineffective care to others? The reality is that some Americans lead healthy lives, and others do not; some Americans receive excellent health care, while others do not.

Our sense is that the prospects for positive change are striking. Technology—applied creatively—offers numerous opportunities for improving how the system operates. The aging of our population—with baby boomers moving into the senior citizen category—is likely to create political pressure for improvements. Americans look abroad and see that other countries have solved these problems in different ways and, while there are complaints, are generally more satisfied with their health systems (Table 1.2S). And large investments in health services research have resulted in growing consensus about how to improve the delivery system.

The constraints we face in making progress toward improving the service system are political and economic. On the political side, sharp disagreements exist about how to create efficiency and effectiveness in the system. Some people favor market principles that rely on economic incentives, competition, and the laws of supply and demand to allocate health care resources. They believe the government is a negative force in assuring that the health care system operates effectively.

Other analysts, however, believe that health care is different than other economic commodities in ways that make market forces ineffective in logically allocating resources. These people believe that efficiency could be improved with government interventions, reliance on nonprofit systems, and more government financing of certain aspects of health care. Working our way through these fundamental differences in ideology is an essential part of the effort to improve our health care system.

Health care raises profound questions about what kind of country we want the United States to be. Is health or some part of health care a right, just like public education for grades kindergarten through 12? Or is health care a capitalistic endeavor, albeit one with a significant public sector component? Which kind of society do Americans want to live in?

Another constraining force that makes improvement difficult is that the current system rewards so many people employed in the health care sector with high salaries and other perks. Corporations and interest groups that benefit from the current system will lobby intensely against any change they see as threatening their stake in the system. Thus, some observers have thrown up their hands and concluded that it would be much simpler to design an effective health care system from scratch than to make the incremental changes needed to strengthen the current system.

The Importance of Engagement at the Ground Level

The health care system challenges are exciting. The two authors have had the privilege of working for many years in a range of professional roles and to have been part of numerous efforts to improve health care delivery in the United States. We have seen both successes and failures. We remain optimistic that pragmatism, flexibility, consensus building, and attention to objective, high-quality information can work to bring about positive change. We remain stimulated by the challenge and pleased that we made the choice of devoting our careers to helping our nation maintain a viable and effective health care system.

Certainly, we have observed that best practices are now being implemented across a wide range of domains affecting health and health care in the United States and worldwide. How do we speed the process of getting more of the system, more individual professionals,

and more of our population engaged in best practices? Our text gives readers the information and some of the skills to do so.

The future of the U.S. health care delivery system will see improvements if committed and informed people choose to enter the field. It is our hope that this book provides a basis for future leaders to learn about the system and be stimulated to join the large cadre of professionals working to help Americans avoid preventable early death and serious illness and, if unavoidably sick and dying, to provide skillful care, compassion, and comfort.

Chapter 1 Supplement

Key Charts

Victoria Weisfeld

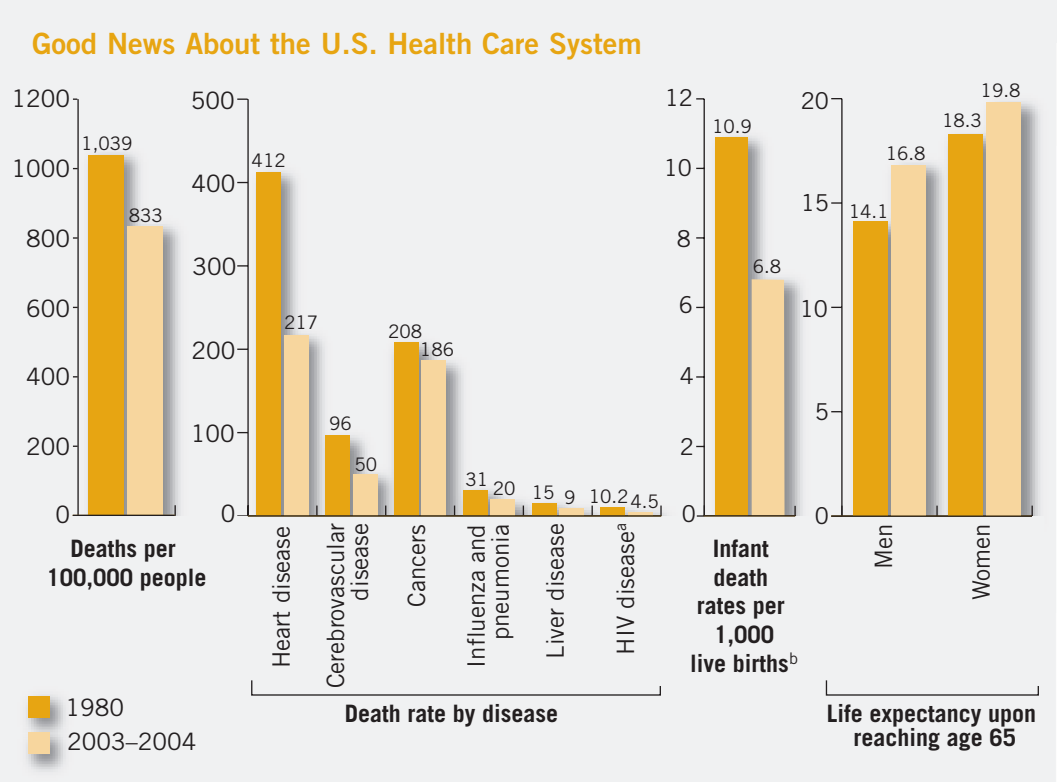
This short section of charts pulls together basic information on a number of subjects that cut across many of the other chapters of this book, such as the first two charts reporting good news and influences on health, and, conversely, it includes issues such as mental health and oral health that are not covered in detail in any of the remaining chapters. They help round out the vision of U.S. health care pursued in depth in the individual chapters. Each of the charts has an important story to tell that will help orient readers for the detail to come.

GOOD NEWS ABOUT THE U.S. HEALTH CARE SYSTEM

The authors recognize that health care delivery in the United States is frequently presented as a glass half-empty story. People who work in health care are challenged (and sometimes frustrated) by the shortcomings in the system. Ironically, this is partly due to the tremendous accomplishments of the U.S. health care system. These advances make us long for more—to make access to care easier and cheaper, to overcome quality shortcomings, and, ultimately, to extend the benefits of better health to more Americans. Because we can see achievable goals, we want to reach them.

Before we ask readers to wade into many of the shortcomings of the system, consider the many accomplishments of the U.S. health system. Most important, dramatic improvements have been achieved in reducing death rates and increasing longevity. These benefits are largely due to the work of our health care and public health sectors in advocating reduced cigarette smoking; improving control of high blood pressure and other cardiovascular risk factors; greatly improved treatments of many types of cancer, HIV/AIDS, and other diseases; prevention of infectious disease; and improvements in the environment (reduced exposure to carcinogens and air pollution).

Figure 1.1S



[a] Data are from 1990.
[b] Data are from 1983.
Note. From U.S. Department of Health and Human Services, National Center for Health Statistics. (2006). *Health, United States, 2006, with chartbook on trends in the health of Americans*, Hyattsville, MD: Author. Retrieved from http://www.cdc.gov/nchs/data/hus/hus06.pdf#042

INFLUENCES ON HEALTH

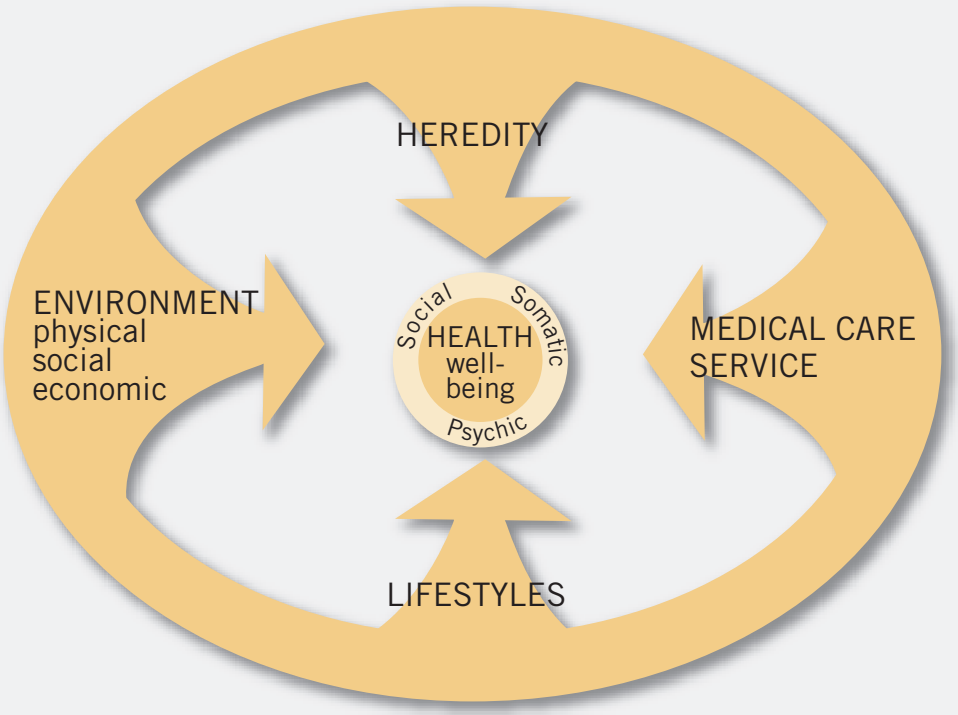
An individual's health is influenced by many factors. Some are present from birth (genetic factors, congenital conditions), others are present in environments in which we live (family structure, socioeconomic status, physical environment). Our health also is influenced by the choices we make—our diet, whether we smoke, the exercise we get—the behavioral factors discussed in chapter 10. And, finally, our health is affected by our interactions with the health care system—whether we receive preventive care, obtain effective treatment, and avoid problems caused by the health system itself (medical errors, hospital-acquired infections, and the like).

While genetic endowment may be crucially important in developing certain diseases, especially those that manifest themselves relatively early, for many chronic conditions it can be merely a predisposing factor—that is, one that may or may not affect health, depending on what else happens to us over our life times.

Ironically, much of what we spend on health care does not affect the factors most influential on health status.

Figure 1.2S

Influences on Health



GETTING THE PREVENTIVE CARE WE NEED

In recent years, a body of research has been building around the question of whether people receive the care they need. In some senses, this is an access-to-care question, and in other ways, it's a quality-of-care question. The answer to this question has significant implications on the cost of care. In various chapters and contexts in this book, such research is mentioned. The research has addressed the extent to which people with specific illnesses obtain the treatments recommended for their condition; other research has focused on whether Americans receive recommended screening and preventive services.

The accompanying charts focus on preventive care. Much expert analysis has gone into developing a schedule of screening tests (for diseases such as breast, colon, and cervical cancer and for conditions such as high blood pressure) and services (such as immunizations), depending on an individual's age and gender.[1] Because the incidence of serious chronic diseases rises as people age, older Americans especially need such services. The charts show clearly that White Americans and those who have insurance and are financially well-off are more likely to receive preventive services. Equally striking is that, *in the best case,* hardly more than half of Americans, even higher-risk older Americans, receive all recommended preventive care.

[1] See, for example, the work of the National Coordinating Committee for Clinical Preventive Services. Retrieved from http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid = hstat6.section.4491

Figure 1.3S

Percent of U.S. Adults Who Receive All Recommended Screening and Preventive Services, 2002

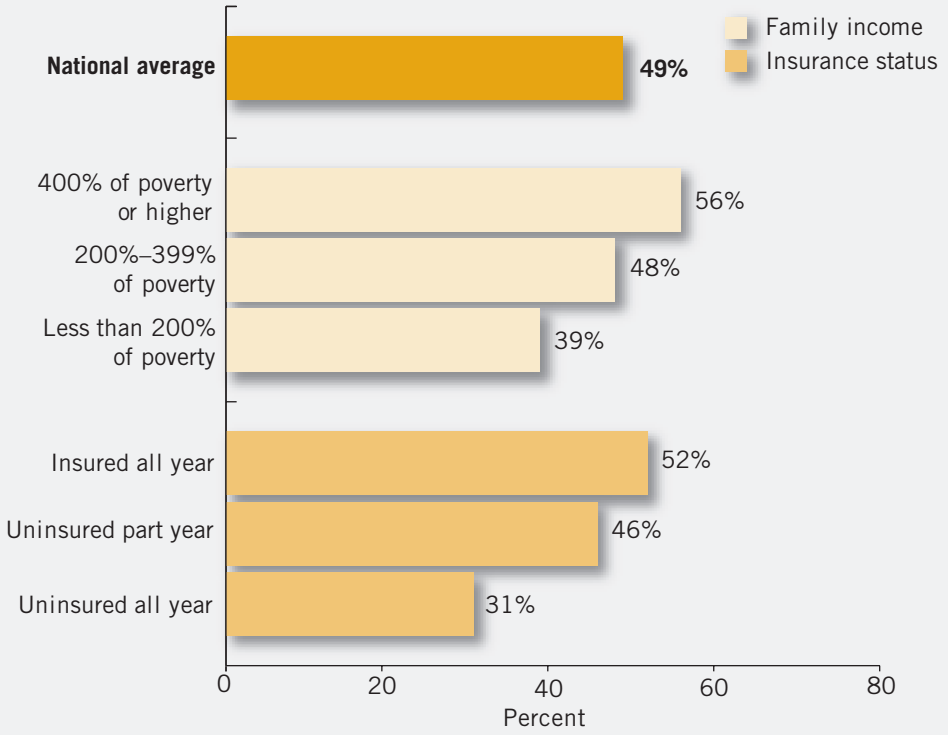
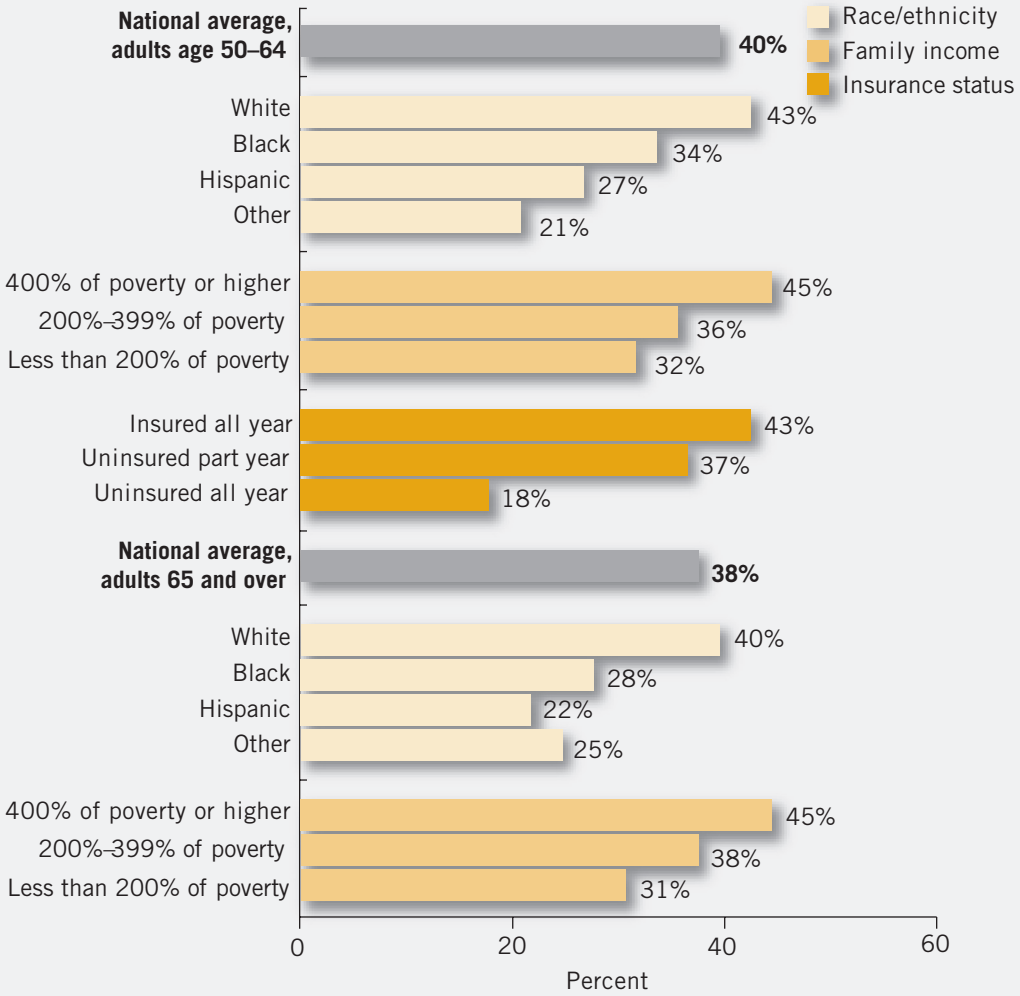


Figure 1.4S

Percent of Older U.S. Adults Who Receive All Recommended Screening and Preventive Services, 2002



Note. From U.S. Department of Health and Human Services, Agency for Healthcare Quality and Research. (2002). *Medical expenditure panel survey.* Analysis by B. Mahato, Columbia University. Retrieved from http://www.meps.ahrq.gov/mepsweb/

THE CHANGING U.S. POPULATION

The racial and ethnic composition of the U.S. population is undergoing rapid change, and the nation's health system will need to adapt. First, different population groups have somewhat different patterns of illness. These differences are particularly pronounced in immigrant families who bring with them dietary and other habits of their home country. Thus, some of the differences recede with later generations, and the immigrants' grandchildren begin to experience disease patterns similar to those of the U.S. population in general—for better or worse. (Hereditary diseases linked to particular racial or ethnic groups do not evolve in this way. For example, Tay-Sachs disease continues to affect Eastern Europeans and Ashkenazi Jews almost exclusively, and sickle cell anemia remains primarily a disease of African Americans.)

Another way that population changes affect the health care system is around the question of health literacy. The U.S. health care system is extremely complex and—especially for people with limited resources in terms of insurance, income, education, or English—difficult to access. As more health care decisions and responsibilities are placed on consumers and as more post-hospital care takes place in the home environment, the situation can become acute for anyone who is not adequately helped to understand his or her role and supported in carrying it out. Again, the problems of health literacy are likely to be worse for immigrants and lessen as these individuals, or their children, begin to be more like the rest of the country.

Finally, while we call our nation a melting pot, social critics have suggested our society is less like tomato soup, every spoonful the same, and more like beef stew, with recognizable individual components. Some individuals are more comfortable dealing with other individuals like themselves and seek out health care professionals from their racial or ethnic group. For this reason, diversity in our health care workforce is important to good patient care; conversely, the many health professions facing shortages should look to the full spectrum of ethnic groups in order to expand the pool of new entrants. For people who do not speak English well, having a health professional who can speak to them in their language is an important—sometimes difficult to achieve—goal.

Table 1.1S Current and Projected Makeup of the U.S. Population, 2000–2050

Population Percentage	2000	2010	2020	2030	2040	2050
White	81.0	79.3	77.6	75.8	73.9	72.1
Black	12.7	13.1	13.5	13.9	14.3	14.6
Asian	3.8	4.6	5.4	6.2	7.1	8.0
Other	2.5	3.0	3.5	4.1	4.7	5.3
Hispanic	12.6	15.5	17.8	20.1	22.3	24.4
Non-Hispanic white	69.4	65.1	61.3	57.5	53.7	50.1

Note. From U.S. Census Bureau. (2004). *U.S. interim projections by age, sex, race, and hispanic origin.* Retrieved May 2007, from http://www.census.gov/ipc/www/usinterimproj

QUALITY VERSUS COSTS OF CARE

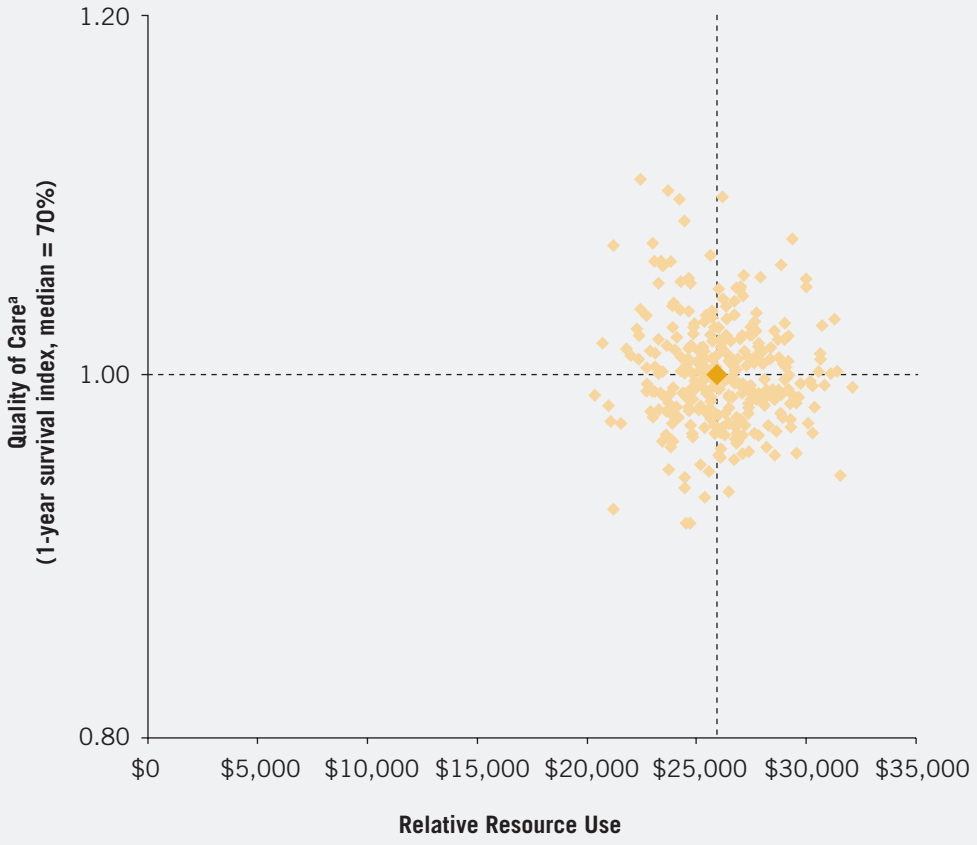
Americans might accept their higher costs of care if they believed their expenditures were buying them quality. But too many indicators suggest they are not. The landmark Institute of Medicine analyses of the quality of U.S. health care (*To Err Is Human,* 2000, and *Crossing the Quality Chasm,* 2001) are cited numerous times in this volume. If the average American is not aware of these academic assessments of health care problems, they have seen them in their own lives.

The public is not wrong about this issue. This chart shows how, for three major, common conditions of Americans over 65—heart attack, colon cancer, and hip fracture—average hospitalization costs vary by more than 50%, from just under $20,000 per case to well over $30,000. (Each dot on the chart represents a standardized hospital referral region.) Unfortunately, quality varies about as widely. The average quality (measured by survival after 1 year) was set at 1.0, and, naturally, many regions were under that average, and many were above.

If there were a relationship between the amount spent and the quality of care (survival) achieved, the dots on this chart would follow a slanted line—low expenditures and low survival, rising to higher expenditures and higher survival. In fact, we see a confusing picture. Many hospitals that spend less than the average demonstrate better outcomes, and this group includes several of the best-performing hospitals. By contrast, many hospitals that spend markedly more than the average have worse-than-average outcomes. (Note that these data have been adjusted to account for population differences—that is, sicker patients—in different hospital referral regions.)

Figure 1.5S

Quality and Costs of Care by Hospital Referral Regions, 2000–2002



[a] Indexed to risk-adjusted 1-year survival rate (median = 0.70) for Medicare patients with heart attack, colon cancer, and hip fracture.

Note. Fisher, E. & Staiger, D. Dartmouth College, Dartmouth atlas of health care team's analysis of data from a 20% national sample of Medicare beneficiaries. Cited in *Commonwealth fund national scorecard on U.S. health system performance.* (2006). Retrieved from http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=401577.

ORAL HEALTH CARE

Oral health encompasses not just the teeth, but diseases affecting the gums, mouth, and throat, including cancers of these areas. Although community water supply fluoridation has reduced the number of cavities (caries) for many younger Americans, one-fourth of people over age 60 have lost all their natural teeth.

Tooth decay is not merely a cosmetic issue. Bad teeth are painful and put people at a serious social and employment disadvantage. Oral health needs were the top concern of uninsured Americans as far back as the 1995 National Access to Care Survey.[2]

Increasingly, researchers recognize that the mouth is a window into the health of the whole body. For example, diabetes—one of the worst manifestations of the national obesity epidemic—often shows up first in the gums. Gum disease may play a role in the development of heart disease, the nation's number one killer.[3] It also may keep healthy women from having healthy babies by causing premature delivery and fetal growth problems.

While Figure 1.6S notes an overall untreated caries rate of 22%, note that this is less than half the rate of three decades ago: in 1971–1974, almost half (48.3%) of children ages 2 to 17 had untreated caries.

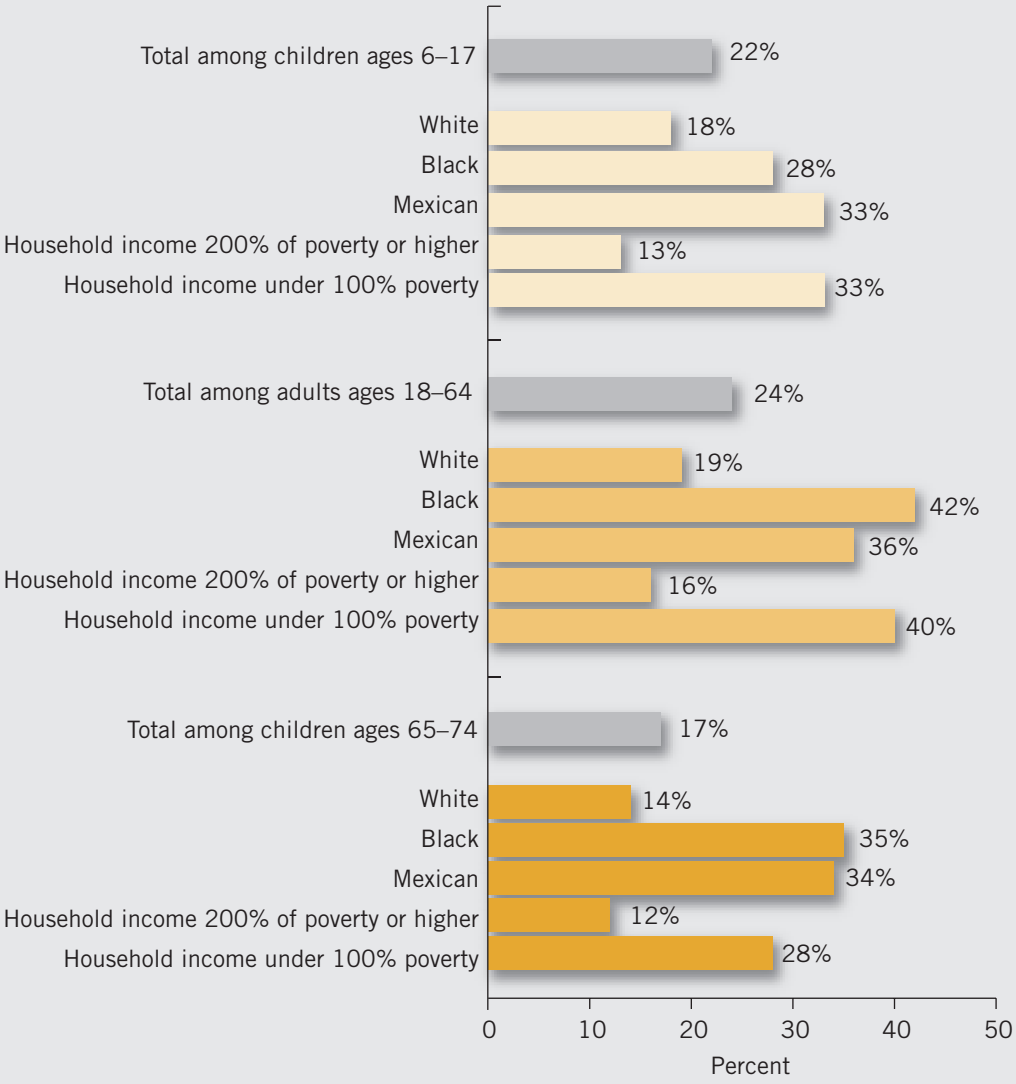
---

[2] Mark L. Berk, Claudia L. Schur, and Joel C. Cantor, 1995, Data Watch: Ability to Obtain Health Care: Recent Estimates from the Robert Wood Johnson Foundation National Access to Care Survey. *Health Affairs, 14,* 139–146.

[3] People with severe gum disease are more likely to have had a heart attack, gum disease bacteria have been found in the linings of arteries, and animals with gum disease bacteria are susceptible to blockages in their arteries. See, for example, Sabine O. Geerts et al., 2004, Further Evidence of the Association Between Periodontal Conditions and Coronary Artery Disease, *Journal of Periodontology, 75,* 1274–1280; and Yong-Hee P. Chun et al., 2005, Mini-review: Biological Foundation for Periodontitis as a Potential Risk Factor for Atherosclerosis, *Journal of Periodontal Research, 40,* 87–95.

Figure 1.6S

Untreated Dental Caries, by U.S. Population Group, 1999–2002



Note. From U.S. Department of Health and Human Services, Centers for Disease Control, National Center for Health Statistics. (2005). *National health and nutrition examination survey.* Analysis in the *Commonwealth Fund National Scorecard on U.S. Health System Performance,* 2006. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm

THE IMPACT OF MENTAL DISORDERS

One of the neglected stories of U.S. health care is the prevalence of mental health disorders. According to the National Institute of Mental Health, mental disorders are the leading cause of disability for Americans ages 15 to 44, and, in any given year, one in four adults—some 57.7 million Americans—has a diagnosable mental disorder. (About 1 in 17 has what would be classified as a serious mental illness.) Similarly, according to 2005 data, one in four patients admitted to U.S. hospitals suffers from depression, bipolar disorder, schizophrenia, other mental health disorders, or substance use.[4]

The World Health Organization estimates that in developed countries such as the United States, 15% of the burden of disease (defined as years of life lost to both premature mortality and disability) is caused by mental illnesses—more than the burden caused by all cancers combined. Recent research indicates that American adults with serious mental illnesses die about 25 years earlier than Americans in general and that the majority of these premature deaths are due to preventable conditions, such as heart disease, diabetes, and respiratory illnesses.[5]

The most serious and common mental disorders affecting U.S. adults are depression and other mood disorders (affecting 10%), which are closely linked to suicide (in 2004, more than 32,000 Americans committed suicide); schizophrenia, affecting about 1%; anxiety disorders (panic disorder, posttraumatic stress, phobias, and so on), affecting 18%; and Alzheimer's disease, affecting 4.5 million and rapidly increasing in prevalence. Comorbidity is common: 45% of people with one mental disorder actually have two or more, which increases the severity of effects and the complexity of treatment. Diagnosis and treatment of mental disorders affecting children—attention deficit disorder, hyperactivity, the spectrum of autism—is increasing and remains controversial.

Despite the large numbers, less than half of Americans with serious mental illnesses receive treatment, with the proportion much less for minorities and the poor. The impact of mental disorders on quality of life—and length of life—make adequate treatment all the more important.

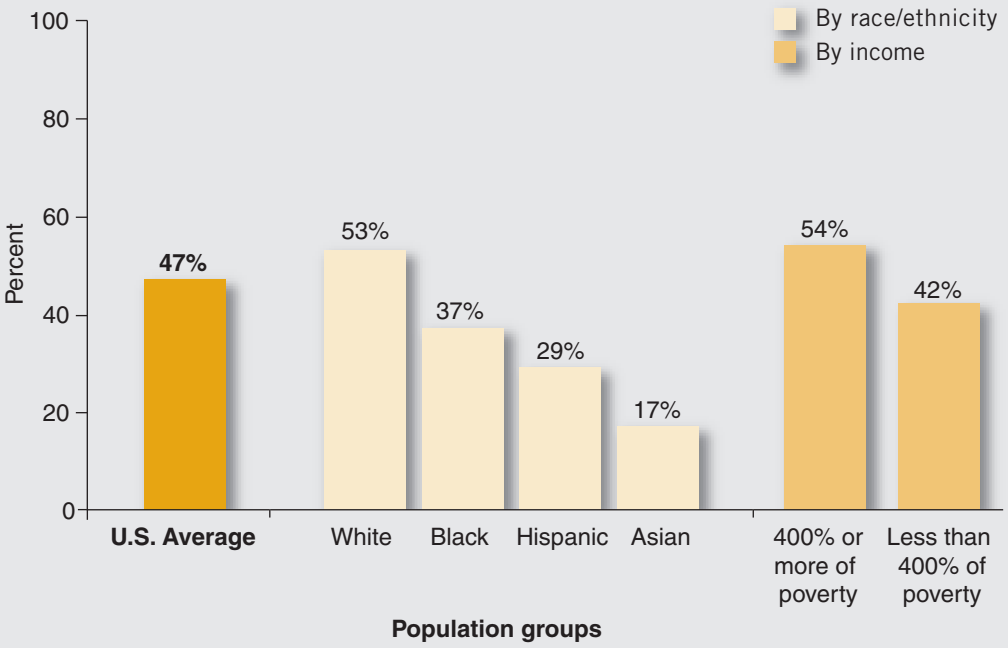
---

[4] U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, 2007, *Care of Adults With Mental Health and Substance Abuse Disorders in U.S. Community Hospitals, 2004.* Retrieved from http://www.ahrq.gov/data/hcup/factbk10

[5] J. Parks, D. Svendsen, P. Singer, and M. E. Foti (Eds.), 2006, *Morbidity and Mortality in People With Serious Mental Illness.* Alexandria, VA: National Association of State Mental Health Directors. Retrieved from http://www.nasmhpd.org/general_files/publications/med_directors_pubs/Technical%20Report%20on%20Morbidity%20and%20Mortaility%20-%20Final%2011–06.pdf

Figure 1.7S

Proportion of Americans With Serious Mental Illnesses Who Received Treatment in the Previous Year, 2003

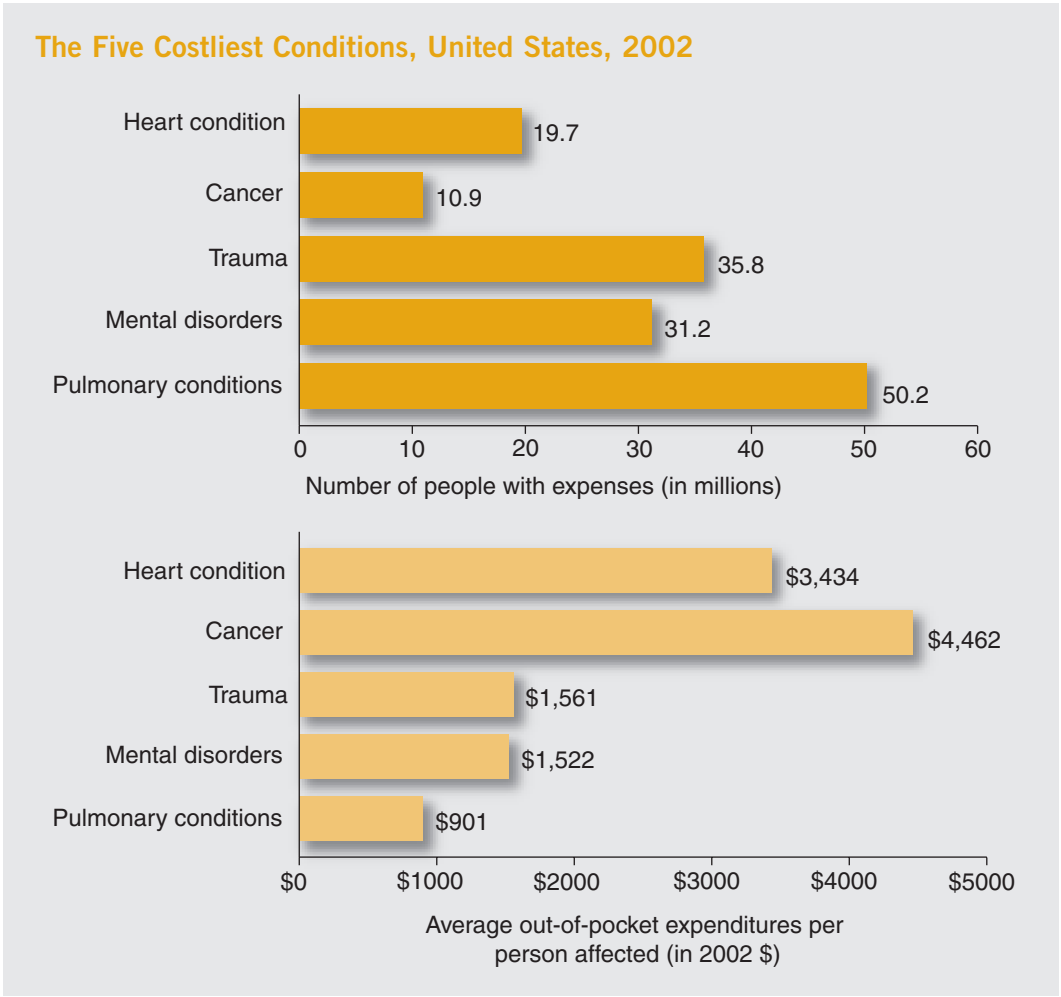


Note. From U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. (2003). *National survey on drug use and health.* Retrieved from http://oas.samhsa.gov/2k6/mhTX/mhTX.cfm

COSTLY MEDICAL CONDITIONS

The five medical conditions that cost Americans the most in out-of-pocket expenditures are heart diseases, cancer, trauma, mental disorders, and lung conditions. In 2002, cancer was the costliest of these at $4,462, but lung conditions were the most common, with just over 50 million Americans having expenses for these disorders. Heart conditions were the second-costliest problem ($3,434), and just under 20 million Americans were affected. More than 31 million Americans had expenses related to mental disorders, averaging more than $1,500. Personal expenditures at these levels, which are rising rapidly, foster dissatisfaction with current insurance coverage among a large numbers of Americans.

Figure 1.8S



Note. From Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality. (2002). *Household component of the medical expenditure panel survey,* HC-070. Retrieved from http://www.meps.ahrq.gov/mepsweb/

DISSATISFACTION WITH THE U.S. HEALTH CARE SYSTEM

Authors in this volume have cited numerous problems with the U.S. health care system—problems in quality; lack of attention to long-term care despite the growing number of older, chronically ill, and disabled Americans; inadequate emphasis on population health through public health programs, lack of access to care, and rising costs.

For many Americans, the problems have become increasingly acute in recent years—so much so that they believe the system (or nonsystem, critics would say) must be completely rebuilt. U.S. policymakers, however, continue to tinker around the edges, and most national politicians focus on the issue of insurance reform, not the many other underlying problems. Some innovative state efforts (for example, Maine's Dirigo Health, http://www.dirigohealth.maine.gov) have attempted reforms that simultaneously address access, quality, and costs.

Although people in many developed countries express dissatisfaction with their nation's health care system, Americans are the most dissatisfied. Further, people who have the most health care experience—that is, those who are sicker—tend to be the most dissatisfied. This suggests that their concerns are not theoretical, but are based on actual negative experience, compared to expectations. U.S. health policymakers should be looking to other countries to understand how their health systems differ from ours and why their citizenry is more satisfied.

Table 1.2S International Perspectives on Health Systems, 2005

Percent Who Believe the Health Care System Should Be Completely Rebuilt	Canada	United Kingdom	Germany	United States
Overall	17	14	31	30
Among those who experienced a medical error	39	36	28	44
Among those who reported failures in coordination of care	31	33	34	44
Among those who avoided care because of cost	39	27	38	67

Note. From *Commonwealth Fund International Health Policy Survey of Sicker Adults.* (2005). Retrieved from http://www.commonwealthfund.org/surveys/surveys_show.htm?doc_id=313115