To Maxine, Emily, and Lisa
# Table of Contents

## PART I  The “Corporate” View of Organized Delivery Systems

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>International Health Care: A Twelve-Country Comparison</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*Grant T. Savage, Harry Feirman, Leo van der Reis, Amy Myers, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>David Moxley</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Organized Delivery Systems</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>*Myron D. Fottler, Donna Malvey, and Keila Rooney</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Legal Implications of Business Arrangements in the Healthcare Industry</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>*Gabriel L. Imperato, Lester J. Perling, and Mike Segal</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Financial Management of Organized Healthcare Delivery Systems</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>*Leslie G. Eldenburg, Eldon L. Schafer, and Dwight J. Zulauf</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Labor and Employment Laws Applicable to Organized Delivery Systems</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>*John D. Blair, Peter D. Stergios, Patrick M. Collins, and Aimee Sato</td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

Chapter 6  
The Management of Nursing Services ................................. 307  
Wilhelmina M. Manzano and Gina M. Bufe

Chapter 7  
Marketing Healthcare Services ........................................ 325  
Roberta N. Clarke

Chapter 8  
Healthcare Information Technologies in an Era of Healthcare  
Reform: A Complex Adaptive System Perspective ..................... 359  
Joseph Tan and Joshua Tan

Chapter 9  
Management Engineering .................................................. 401  
Karl Bartscht

Chapter 10  
Ambulatory Care ............................................................ 433  
Kevin W. Barr and Charles L. Breindel

Chapter 11  
Bioterrorism Preparedness .................................................. 459  
John D. Blair, Ephraim Perez, Cynthia A. Holubik, Robert K. Keel,  
Angela M. Roberson, and Steven R. Tomlinson

PART II  The Hospital in an Organized Delivery System ............. 485

Chapter 12  
The History of Hospitals ..................................................... 487  
Lawrence F. Wolper and Jesus J. Peña

Chapter 13  
Laboratories ................................................................. 499  
Paul J. Brzozowski and Paul D. Camara

Chapter 14  
Pharmacy ...................................................................... 533  
Andrew L. Wilson and Karol Wollenburg

Chapter 15  
Material and Resource Management .................................... 573  
William L. Scheyer and Barbara B. Friedman
Chapter 16
Facility Design and Planning for Ambulatory Care Centers . . . . . . . . . .607
Richard Sprow, Sonya Dufner, and Christian F. Bormann

Chapter 17
Quality and Patient Safety ...........................................653
Eliot J. Lazar, Anthony Dawson, Brian K. Regan, Daniel Hyman, and
Karen Scott Collins

Chapter 18
Physician Practice: Organization and Operation .....................675
Michael J. Kelley, Steven Falcone, Stephen G. Schwartz

Chapter 19
Implementing a Physician Practice Compliance Program .............709
Lawrence F. Wolper

Index ............................................................................753
About the Author/Editor

Lawrence F. Wolper, MBA, FACMPE, is president of L. Wolper, Inc., with offices in New York and New Jersey. The firm is a full-service consulting organization specializing in all aspects of physician group practice, faculty practice, and ambulatory care. In addition, L. Wolper, Inc. has experience in contract-managing physician group practices and ambulatory surgery centers, as well as in practice turnarounds. The firm also conducts civil and health industry mediation.

Mr. Wolper has more than 25 years of consulting and senior executive experience and has been the advisor to, or managed, major group practices, faculty practice plans, ambulatory surgery centers, and integrated networks. Prior to founding his firm in 1987, he was a partner in KPMG International, LLP, with New York–area and national responsibility for physician practice and ambulatory care consulting. At that time, he was involved in the development of large group practices, faculty practice plans, and provider networks. Prior to his partnership in KPMG, he was a consulting partner with Ingram, Weitzman, Mertens & Co, a large regional healthcare accounting and consulting firm.

He has published more than 35 professional journal articles and 8 texts on a variety of subjects germane to physician and faculty practice and to healthcare administration.

Mr. Wolper received an MBA in healthcare administration from Bernard M. Baruch College–Mount Sinai School of Medicine and a BA in advertising/marketing from Hofstra University. He was a Robert Wood Johnson Foundation Fellow in HMO Management at the Wharton School, University of Pennsylvania, and an Association of University Programs in Hospital Administration (AUPHA) Fellow studying the British National Health System at the King’s Fund College of Hospital Management in London, England. He is a Fellow in the American College of Medical Practice Executives.
Preface and Acknowledgments

The idea for the first edition of this book occurred many years ago when I was completing my master's degree in business and healthcare administration. I came across a text titled *Hospital Organization and Management* by Dr. Malcolm Thomas MacEachern. A well-respected text found on every administrator's bookshelf, it was out of touch with the changes that had occurred in the industry since its first printing in 1935 and the editions that occurred thereafter. I decided at that time that I would like to produce a book that would encompass nearly all the topics relevant to the healthcare industry.

The first edition of this book was published in 1987, 23 years ago. Consistent with the times, the focus was on the hospital, and it was organized to include sections on departmental operations, as well as one encompassing the functional/technical areas pertaining to hospitals and the industry in general. It included sections on information systems, management engineering, and marketing, among others.

The second edition of the text was modified as a result of major regulatory, delivery system, and technological changes. In addition, trends toward managed care and the acquisition of physician practices necessitated the inclusion of several entirely new chapters on topics such as managed care, ambulatory care, physician practice, and international healthcare systems. In light of the fact that many graduate programs in healthcare administration use this book, the revisions in that edition added more technical detail to give students a complete understanding of information systems, inpatient and outpatient Medicare reimbursement, physician practice, ambulatory care, and other topics. The second edition recognized the emergence of organized delivery systems and the changing role of the hospital within those emerging systems. Ambulatory care, increased care in doctors' offices, decreasing hospital reimbursement, managed care and utilization review, and other factors were reducing the long-standing role of the hospital as the major locus of care.

Although the second edition recognized the emergence of organized delivery systems, the theme of the third edition was the organized delivery system. There no longer were three parts...
in the book, but two. The first, and dominant part of the book, “Planning, Implementing, and Managing Organized Delivery Systems,” broadly began with international health care. Other chapters in Part I covered a range of detailed functional, technical, and organizational matters that pertained to organized delivery systems from the system and corporate (i.e., not hospital) perspective. Part II of the book, “The Hospital in an Organized Delivery System,” was devoted to matters that relate to the hospital or functions that occur at the hospital level, particularly those in an organized delivery system.

The fourth edition of this text remained consistent with the prior edition, and, as such, continued to focus on organized delivery systems and the role of the hospital within a system environment. Most of the long-standing chapters in the text were updated, and new chapters were added covering labor law, designing and implementing a hospital compliance program, implementing a physician practice compliance program, biomedical ethics, and, in response to changing times, a chapter on bioterrorism preparedness. In recognition of the continuing presence and changing character of managed care, the chapter on this subject was expanded.

Now, 23 years after the first edition, the fifth edition comes at a time when there may be broad healthcare reform at hand. Not merely a change in the type of insurance methodology (i.e., from indemnity to managed care, or from cost-plus based to DRGs), but change that is intended to insure millions of uninsured, promote integrated and electronic health records, trim costs that do not contribute more directly to the health status of Americans, and to make insurance more affordable. After decades of attempting broad healthcare reform by at least four US presidents, such reform may be achievable in some form. The fifth edition of the book is shorter, with the existing chapters largely all modified. The chapters retain their technical detail, particularly in those such as “Healthcare Information Technologies in an Era of Healthcare Reform: A Complex Adaptive System Perspective,” “The Management of Nursing Services,” “Facility Design and Planning for Ambulatory Care Centers,” “Organized Delivery Systems,” and “International Health Care,” which is now a comparison of 12 countries.

I would like to acknowledge all authors, and the many coauthors and researchers who assisted them. In particular, I acknowledge Myron Fottler and Donna Malvey for updating an already excellent chapter; Gabe Imperato and staff for keeping the legal issues as up-to-date as possible in a fast-paced industry; Leslie Eldenburg, Eldon Schafer, and Dwight Zulauf for keeping their chapter always contemporary; Wilhelmina Manzano and Gina Bufe who accepted the challenge of rewriting the nursing chapter and did an exemplary job; Roberta Clarke, who, in the area of marketing in the healthcare industry, always seems to introduce new ideas and challenges to those of us in the industry; Richard Sprow, Sonya Dufner, and Chris Bormann, who wrote an excellent chapter on facility design; Eliot Lazar and his coauthors for rewriting the chapter on quality and patient safety; and to Michael Kelley and his coauthors for keeping the chapter on physician practice on pace with the rapid changes in that sector of the industry.

I am grateful to my daughters Emily and Lisa, and my wife Maxine, because they have provided me with a great deal of the energy and enthusiasm required to conceive of, plan, and produce a comprehensive text. As young adults, my daughters and their generation will, I hope, benefit from the industry changes that will occur in the coming years without being the beneficiaries of an onerous tax burden. On the other hand, relating to my wife and I, as we approach
Medicare coverage in the years to come, our hope is that the program remains as comprehensive and vital as it has for prior generations.

In spite of the weaknesses in our healthcare system and the high costs associated with it, there are strengths to which other countries aspire. It is hoped that in our drive to reduce healthcare expenditures, extend insurance to millions of uninsured, and to restructure a vibrant industry, we do not move so far and fast that the high quality of care always associated with our system will be subordinated. If such conditions appear to be materializing, I expect that the public will intervene politically. Consumerism remains an expanding influence in the healthcare and other industries. It is hoped that we make better use of healthcare dollars, and that the United States begins to catch up with many countries in terms of improving healthcare outcomes in which we do not compare favorably to many other advanced countries. Those countries have continued to modify their systems for many decades. The impending healthcare legislation will not likely “get it right” the first time. Many legislative modifications will be required in the decades to come.

—Lawrence F. Wolper, MBA, FACMPE
Contributors

Kevin W. Barr, MBA
Chief Executive Officer
Bon Secours Virginia HealthSource, Inc.
Richmond, Virginia

Karl Bartscht, MSE, FAAHC
Former CEO
The Chi Group, Inc.
Ann Arbor, Michigan

John D. Blair, PhD
Trinity Company Professor of Management
Center for Health Care Leadership & Strategy
Rawls College of Business
Texas Tech University
Lubbock, Texas

Christian F. Bormann, AIA, NCARB, LEED® AP
Principal, Healthcare Market Sector Leader
Perkins+Will
New York, New York

Charles L. Breindel, PhD
Former Professor
Medical College of Virginia
Virginia Commonwealth University
Richmond, Virginia
Paul J. Brzozowski, MT (ASCP), MPA  
Partner  
Applied Management Systems, Inc.  
Burlington, Massachusetts  

Gina M. Bufe, PhD, RN  
New York-Presbyterian Hospital  
New York, New York  

Paul D. Camara, MS  
Manager  
Applied Management Systems, Inc.  
Burlington, Massachusetts  

Roberta N. Clarke, MBA, DBA  
Associate Professor  
School of Management  
Boston University  
Boston, Massachusetts  

Karen Scott Collins, MD, MPH  
Vice President  
New York-Presbyterian Hospital  
New York, New York  

Patrick M. Collins, JD  
Counsel, Labor and Employment Practice Group  
Greenberg Traurig, LLP  
New York, New York  

Anthony Dawson, RN, MSN  
Vice President  
Operations at the Milstein Pavilion  
New York-Presbyterian/Columbia  
New York, New York  

Sonya Dufner, ASID, LEED AP  
Perkins+Will  
New York, New York  

Leslie G. Eldenburg, PhD, CPA  
Associate Professor of Accounting  
Eller School of Management  
University of Arizona  
Tucson, Arizona
Steven Falcone, MD
Leonard M. Miller School of Medicine
University of Miami
Boca Raton, Florida

Harry Feirman, PhD
Rocheport, Missouri

Myron D. Fottler, MBA, PhD
Professor and Director
Health Services Administration Programs
University of Central Florida
Orlando, Florida

Barbara B. Friedman, MA, MPA, FAHRM
Consultant
Forest Hills, New York

Cynthia A. Holubik, RN, BSN, MSM
Director
Bioterrorism Preparedness Project
Center for Health Care Leadership and Strategy
College of Business Administration
Texas Tech University
Lubbock, Texas

Daniel Hyman, MD, MMB
The Children’s Hospital
Aurora, Colorado

Gabriel L. Imperato, JD
Managing Partner
Broad and Cassel
Ft. Lauderdale, Florida

Robert K. Keel, BS, MA
Research Assistant
Texas Tech University
Lubbock, Texas

Michael J. Kelley, MBA
Vice Chair for Administration
Office of the Executive Clinical Dean at FAU
University of Miami
Miller School of Medicine at FAU
Miami, Florida
Eliot J. Lazar, MD, MBA  
Senior Vice President, Chief Quality and Patient Safety Officer,  
New York-Presbyterian Hospital  
Chief Medical Officer  
New York-Presbyterian Healthcare System  
New York, New York

Donna Malvey, PhD, MHSA  
Visiting Assistant Professor  
University of Central Florida, Cocoa Campus  
College of Health and Public Affairs  
Cocoa, Florida

Wilhelmina M. Manzano, MA, RN, NEA-BC  
New York-Presbyterian Hospital  
New York, New York

David Moxley  
University of Missouri School of Medicine  
Health Management & Informatics Department  
Columbia, Missouri

Amy Myers  
University of Missouri School of Medicine  
Health Management & Informatics Department  
Columbia, Missouri

Jesus J. Peña, MPA, Esq.  
Jesus J. Peña & Associates, Jackson Heights, New York  
Attorney  
Saint Michael's Medical Center  
Newark, New Jersey  
Jackson Heights, New York

Ephraim Perez  
Lester J. Perling  
Partner  
Broad and Cassel  
Ft. Lauderdale, Florida

Brian K. Regan, PhD  
Director, Clinical Affairs  
New York-Presbyterian Healthcare System  
New York, New York
Angela M. Roberson, MBA
Administrative Fellow
MD Anderson Cancer Center
Houston, Texas

Keila Rooney
Administrative Resident
Health First, Inc.
Rockledge, Florida

Aimee Sato

Grant T. Savage, PhD
Professor
Department of Management and Marketing
University of Alabama
Tuscaloosa, Alabama

Eldon L. Schafer, PhD, CPA
Professor Emeritus
University of Arizona
Tucson, Arizona

William L. Scheyer
City Administrator
Erlanger, Kentucky

Stephen G. Schwartz, MD, MBA
Bascom Palmer Eye Institute
Naples, Florida

Mike Segal, BA, JD, LLM
Partner
Broad and Cassel
Miami, Florida

Richard Sprow, AIA
Architect
Perkins+Will
New York, New York

Peter D. Stergios, BA, JD
Greenberg Traurig
New York, New York
ConTRIBUTORS

Joseph Tan, PhD
Professor
Business Department
School of Business Administration
Wayne State University
Detroit, Michigan

Joshua Tan
Student
Olin Business School
Washington University
St. Louis, Missouri

Steven R. Tomlinson
Department of Chemistry & Biochemistry
Texas Tech University
Lubbock, Texas

Leo van der Reis, MD
Adjunct Professor
Clinical Professor
Department of Management and Marketing
University of Alabama
Tuscaloosa, Alabama

Andrew L. Wilson, PharmD, FASHP
Director of Pharmacy Services
Department of Pharmacy
Virginia Commonwealth University Health System
Richmond, Virginia

Karol Wollenburg
Pharmacy Department
New York-Presbyterian Hospital
New York, New York

Dwight J. Zulauf, BS, MS, PhD, CPA
Professor and Dean Emeritus
School of Business
Pacific Lutheran University
Tacoma, Washington