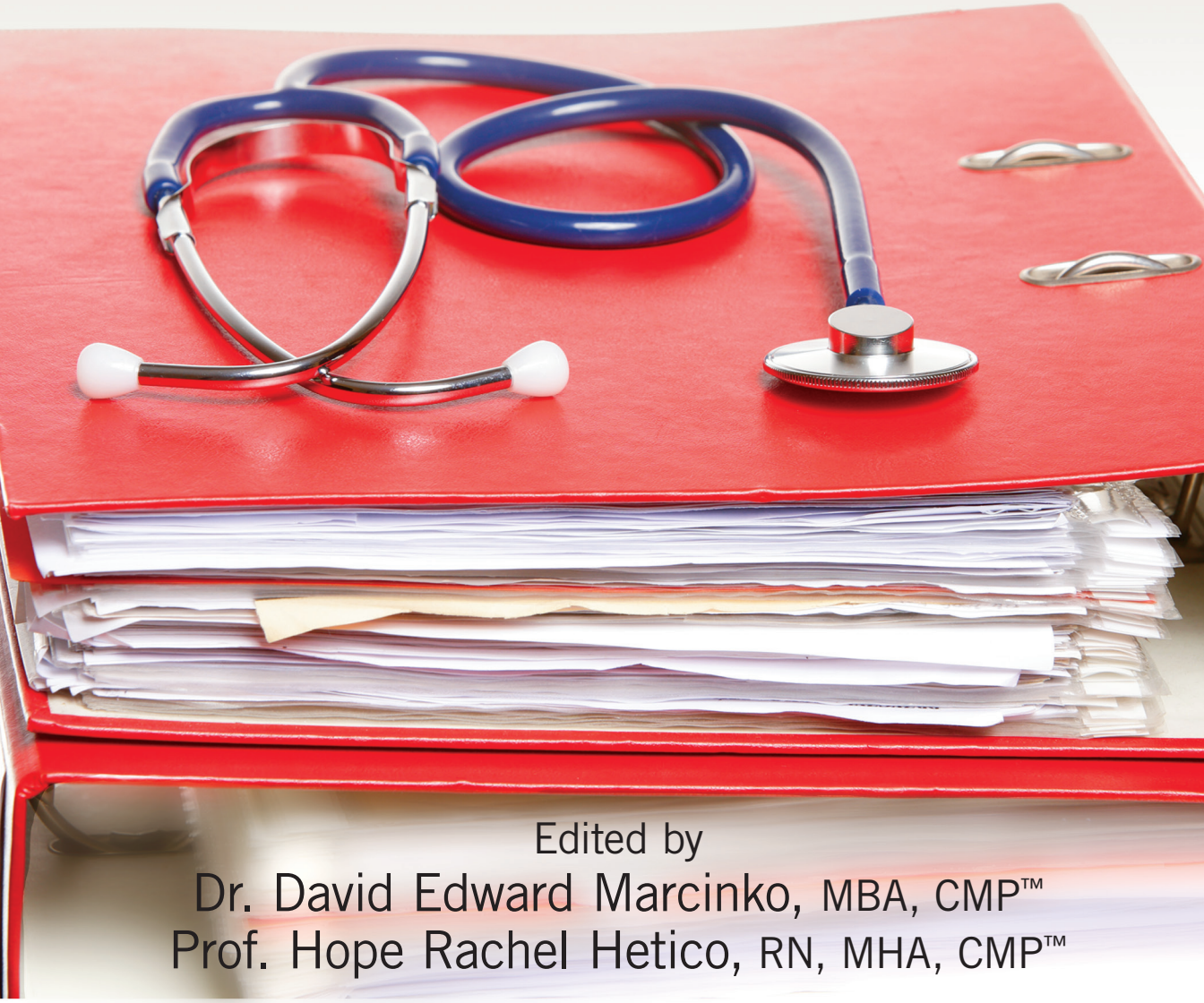
Financial Management Strategies for Hospitals and Healthcare Organizations

Tools, Techniques, Checklists and Case Studies



Edited by
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Foreword by Neil H. Baum, MD

Foreword by David B. Nash, MD, MBA

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A PRODUCTIVITY PRESS BOOK

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Dedication

It is an incredible privilege to edit Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies.

One of the most rewarding aspects of this career has been the personal and professional growth acquired from interacting with protean professionals of all stripes. The mutual sharing and exchange of practice management ideas stimulates the mind and fosters advancement at many levels.

Creating this text was a significant effort that involved all members of our firm. Over the past year we interfaced with numerous outside private and public companies—as well as the Internet blogosphere—to discuss its contents. Although impossible to list every person or company that played a role in its production, there are several people we wish to thank for their support and encouragement: Kristine Mednansky, Senior Editor Business Improvement (Healthcare Management); Karen Sober, Editorial Assistant; and Richard O'Hanley, CRC Press (A Taylor & Francis Group). Any accolades are because of them. All other defects are my own.

Of course, this text would not have been possible without the support of our families, whose daily advocacy encouraged all of us to completion. It is also dedicated to our clients, and to the contributing authors, who crashed the development life cycle in order to produce time-sensitive material in an expedient manner. The satisfaction we enjoyed from working with them is immeasurable.

Dr. David Edward Marcinko, MBA, CMP™
Editor-in-Chief

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Foreword

INSTITUTIONAL FOREWORD

It should come as no surprise to our readers that the nation faces a financial crisis in healthcare. Currently, the United States spends nearly 16 percent of the world's largest economy on providing healthcare services to its citizens. Another way of looking at this same information is to realize that we spend nearly $6,500 per man, woman, and child per year to deliver health services.

And, what do we get for the money we spend?

This is an important policy question, and the answer is disquieting. Although the man and woman on the street may believe we have the best health system in the world, on an international basis, using well-accepted epidemiologic outcome measures, our investment does not yield much! According to information from the World Health Organization and other international bodies, the United States ranks somewhere toward the bottom of the top fifteen developed nations in the world regarding outcomes in terms of improved health for the monies we spend on healthcare. From a financial and economic perspective then, it appears as though the 16–18 percent of the gross domestic product going to healthcare may not represent a solid investment with a good return.

It is then timely that our colleagues at the Institute of Medical Business Advisors, Inc. (iMBA), have brought us their newest work: *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies.*

Certainly, this textbook is not for everyone. It is intended only for those physicians, nurse-executives, and administrators who understand that clinics, hospitals, and healthcare organizations are complex businesses, where advances in science, technology, management principles, and patient/consumer awareness are often eclipsed by regulations, rights, and economic restrictions. Navigating a course where sound organizational management is intertwined with financial acumen requires a strategy designed by subject-matter experts. Fortunately, *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* provides that blueprint. Allow me to outline its strengths and put it into context relative to other works around the nation.

For the last year, the research team at iMBA, Inc., has sought out the best minds in the healthcare industrial complex to organize the seemingly impossible-to-understand strategic financial backbone of the domestic healthcare system. The book, a follow-up companion to their *Hospitals & Health Care Organizations: Management Strategies, Operational Techniques, Tools, Templates, and Case Studies*, is organized into three sections, with twelve chapters, to appropriately cover many of the key topics at hand. It has a natural flow, starting with costs and revenues, progressing to clinic and technology, and finishing with institutional and professional benchmarking.

Section I, on Managerial Medical Cost Accounting, Structure, Modeling, and Behavior (Chapter 1), Understanding Medical Activity–Based Cost Management (Chapter 2), Lean Hospital Materials Processes and Throughput Costs in an Increasingly Tightened Economic Market (Chapter 3), and most especially Managing and Improving the Hospital Revenue Cycle Process (Chapter 4) has broad appeal and would be of interest to hospital chief executive officers, physician-executives and clinic administrators, and chief finance officers and comptrollers.

Section II, on the Financial and Clinical Features of Hospital Information Systems (Chapter 5), Community and County Mental Health Programs of the Future (Chapter 6), Internal Audit Control Measures for Medical Practices and Clinics (Chapter 7), has great appeal to chief executive officers, chief operations officers, psychiatrists, psychologists, health fraud and control auditors, and forensic accountants.

Section III continues in a well-organized theme, progressing through Interpreting and Negotiating Healthcare Contracts (Chapter 9), Investment Policy Statement Benchmark Construction for Hospital Endowment Fund Management (Chapter 10), Valuation of Hospitals in a Changing Reimbursement and Regulatory Environment (Chapter 11), and Research and Financial Benchmarking in the Healthcare Industry (Chapter 12). This section would be of greater interest to those in the financial services industry, health economists and analysts, financial advisors, certified financial analysts, certified medical planners™, wealth and portfolio managers, and business valuation experts.

Every day colleagues ask me to help explain the seemingly incomprehensible financial design of our healthcare system. This volume goes a long way toward answering their queries. I also believe it is appropriate as a textbook and reference tool in graduate level courses taught in schools of business, public health, health administration, and medicine. Judging from my travels around the nation, many faculty members would also benefit from the support of this volume as it is nearly impossible, even for experts in the field, to grasp all of the rapidly evolving details.

On a personal level, I was particularly taken with The Early Promise of Health 2.0 to Enable Wellness, Improve Care, and Reduce Costs in Support of Population Health Management (Chapter 8), in Section II, as it brought back enjoyable memories of my work nearly twenty-five years ago at the Wharton School, on the campus of the University of Pennsylvania. There, I was exposed to some of the best economic minds in the healthcare business, and it was a watershed event for me, forming some of my earliest opinions about the healthcare system. Congratulations to all authors, but this chapter in particular deserves specific mention. As a board member for a major national integrated delivery system, I am happy that there appears to be a greater interest in the intricacies of population health on the financial side of the ledger.

In summary, *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* represents a unique marriage of iMBA, Inc., and its many contributors from across the nation. As its mission statement suggests, I believe that this interpretive text carries out its vision to connect healthcare financial advisors, hospital administrators, business consultants, and medical colleagues everywhere. It will help them learn more about organizational behavior, strategic planning, medical management trends, and the fluctuating healthcare environment, and consistently engage everyone in a relationship of trust and a mutually beneficial symbiotic learning environment.

Editor-in-Chief and healthcare economist Dr. David Edward Marcinko, MBA, CMP™ and his colleagues at iMBA, Inc., should be complimented for conceiving and completing this vitally important project. There is no question that *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* will indeed enable us to leverage our cognitive assets and prepare a future generation of leaders capable of tackling the many challenges present in our healthcare economy.

My suggestion therefore, is to "read it, refer to it, recommend it, and reap."

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PRACTITIONER FOREWORD

No one knows with any degree of certainty what healthcare will look like tomorrow or the days after that. Yet, there are a few predictions that I am sure will come to pass.

First, reimbursement for medical services will significantly decrease. This decrease in reimbursement will impact physicians, hospitals, and other allied healthcare providers. Next, there will

be a decrease in reimbursements for pharmaceutical products and for medical devices. The medical pie that is $2.7 trillion dollars in 2013–2014 occupies 16–18 percent of the U.S. gross domestic product. It is expected to increase to 25 percent by 2025. This trajectory is unsustainable. Finally, and to compound this decrease in income or reimbursements for medical services, there will be an increase in medical overhead costs. You do not have to have an MBA to translate this as a formula for squeezing the profits out of healthcare.

It is fitting that Dr. David Edward Marcinko, MBA, CMP™ and his fellow experts have laid out a plan of action in *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* that physicians, nurse-executives, administrators, and institutional chief executive officers, chief financial officers, MBAs, lawyers, and healthcare accountants can follow to help move healthcare financial fitness forward in these uncharted waters.

In 2001, the Institute of Medicine illuminated to the healthcare world and to the public in their report, *Crossing the Quality Chasm: A New Health System for the 21st Century*, that 98,000 Americans die each year from medical errors. This was the first time that our profession formally made public that the healthcare profession was fallible, imperfect, and fraught with preventable mistakes. This seminal report became a call to action as it gave those of us in the profession an opportunity to correct our errors and make improvements that would improve the care we provide our patients. Fortunately, more than a decade later, *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* will show how something as simple as checklists can make healthcare administration less expensive.

It all began with Dr. Atul Gawande, a surgeon at Massachusetts General Hospital, who reviewed the airline industry and its use of checklists prior to an airplane's take-off. The history of aviation checklists began in 1934 when Boeing was in the final process of testing a U.S. Army fighter plane, with a potential contract of nearly 200 planes riding on the final test of the plane. The test aircraft made a normal taxi and take-off. It began a smooth climb but then suddenly stalled. The aircraft turned on one wing and fell, bursting into flames upon impact and killing two of the test pilots. The investigation found pilot error as the cause: One of the pilots was unfamiliar with the aircraft and had neglected to release the elevator lock prior to take-off. The contract with Boeing was in jeopardy. Thus, the pilots sat down and put their heads together. What was needed was some way of making sure that everything to prevent crashes was being done; that nothing was being overlooked. What resulted was a pilot's checklist for before take-off, during flight, before landing, and after landing. These checklists for the pilot and co-pilot made sure that nothing was forgotten and that the safety of the planes was insured.

So, what does airline safety have to with medical care? There are so many activities that take place in medicine, such as in the operating room, that are far too complicated to be left to the memory of doctors, nurses, anesthesiologists, and others involved in the surgical care of patients. Dr. Gawande identified the key components of a surgical procedure, which included the name of the patient, the procedure to be performed, the estimated length of the procedure, whether the right or left side is the surgical target, how much blood loss is anticipated, whether antibiotics have been given prior to making the incision, and the anesthetic risk of the patient. This use of a checklist, which takes approximately thirty seconds to complete, not only prevents wrong-side surgery but also instills a discipline of higher performance.

Dr. Gawande published an article in the *New England Journal of Medicine* in January 2009 about the use of a surgical safety checklist. This article reviewed a global study in eight hospitals from all over the world, including hospitals in developing countries, which compared a pre-study and post-study rate of surgical complications and mortality after the implementation of surgical safety checklists. This study clearly demonstrated that complications and mortality could be significantly reduced using a checklist prior to making a surgical incision. Dr. Gawande also wrote the book *The Checklist Manifesto: How to Get Things Right* (2011, Picador), which became a *New York Times* best seller.

I am certain that you will gain greater understanding of how to use checklists for the financial operations in your healthcare organization if you read *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies*. You can take the checklist concept from the airline industry to the operating room and then to the boardroom.

Senator Everett Dirkson (1896–1969) once said, "A billion here, a billion there, and pretty soon you're talking real money." This quote could not be more poignant today than it was then, only now we have traded the word trillion for billion! We have a challenge, and *Financial Management Strategies for Hospital and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* is a step in the direction of making all of the stakeholders in the healthcare arena sensitive to reducing and controlling costs, and at the same time preserving quality of care. This can be done. I suggest you start by reading, using, and referring to this excellent book.

And so, what is my final advice?

Some of you who read this book are chief executive officers, chief operations officers, chief medical officers, and maybe even chiefs of staff. But *all* of you should become CLOs (chief life officers)! Read this book and the initials CLO will appear after your name!

Neil H. Baum, MD
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Tulane Medical School
New Orleans, Louisiana
Author, Marketing Your Clinical Practice: Ethically, Effectively, and Economically, *4th Edition, Jones-Bartlett Publishers, 2010*

Preface

Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies will shape the financial management landscape, just as our companion text *Hospitals and Healthcare Organizations: Financial Management Strategies, Tools, Techniques, Checklists and Case Studies* did in the operational arena, by outlining four important principles.

First, we have assembled a world-class editorial advisory board and independent team of contributors and reviewers, and we have asked them to draw on their experience in operations, leadership, and lean managerial decision making in the healthcare industrial complex. Like many readers, each struggles mightily with the decreasing revenues, increasing costs, and high consumer expectations in today's competitive healthcare marketplace. Yet their practical experience and applied operating vision is a source of objective information, informed opinion, and crucial information to all working in this field.

Second, our writing style allows us to condense a great deal of information into *Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies.* We integrate prose, managerial applications, and regulatory policies and perspectives with real-world case studies, models, checklists, and reports, as well as charts, tables, and diagrams. The result is an integrated oeuvre of lean management and operation strategies, vital to all healthcare facility administrators, comptrollers, physician-executives, and consulting business advisors.

Third, as editors, we prefer engaged readers who demand compelling content. According to conventional wisdom, printed texts like this one should be a relic of the past, from an era before instant messaging and high-speed connectivity. Our experience shows just the opposite. Applied healthcare management and administration literature has grown exponentially in the past decade, and the plethora of Internet information makes updates that sort through the clutter and provide strategic analysis all the more valuable. Oh, and it should provide some personality and wit, too! Do not forget, beneath the management theory and case models are patients, colleagues, and investors who depend on you.

Finally, it is important to note that proper leadership and cultural expectations are implied in healthcare financial management, and we present case models and studies directly from that space; and not by indirect example from other industries. Healthcare financial management is our core, and only focus.

And so, rest assured that *Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* will become an important book for the advancement of financial management and health economics principles in our field. In the years ahead, we trust that these principles will enhance utility and add value to this book. Most importantly, we hope to increase your return on investment.

If you have any comments, or if you would like to contribute material or suggest topics for future editions, please contact me.

Professor Hope Rachel Hetico
Managing Editor

TARGET MARKET AND IDEAL READER

Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies should be in the hands of all:

- Chief executive officers, chief financial officers, vice presidents, and other cheif-level executives from every type of hospital and healthcare organization, including: public, federal, state, Veteran's Administration, and Indian Health Services hospitals; district, rural, long-term care, and community hospitals; specialty, children's, and rehabilitation hospitals; diagnostic imaging centers and laboratories; and private, religious-sponsored, and psychiatric institutions.
- Accountable Care Organizations (ACOs), Physician Hospital Organizations (PHOs), Management Services Organizations (MSOs), Regional Extension Centers (RECs), Independent Practice Associations (IPAs), Regional Health Information Exchanges (RHIEs), Group Practices Without Walls (GPWWs), Integrated Delivery Systems (IDSs), Medical Homes (MHs), and their administrators; and all healthcare organization managers, health attorneys, executives, consultants, and their strategic advisors.
- Ambulatory care centers, hospices, and outpatient clinics; skilled nursing facilities, integrated networks, and group practices; academic medical centers, nurses, and physician executives; business schools and health administration students, and all economic decision makers and directors of allopathic, dental, podiatric, and osteopathic healthcare organizations.

Collectively known as emerging and mature healthcare 2.0 organizations (EMHOs) because of the merger, acquisition, and consolidation fervor in the industry, readers from these entities should use this textbook in the following way.

First, read the Table of Contents for an overview of the hospital, health economics, and healthcare financial R&D community, and then browse through the entire book. Next, slowly read chapters that are of specific interest to your professional efforts. Then, extrapolate portions that can be implemented as pertinent strategies helpful to your health institutional setting. Finally, read the epilogue and use it as an actionable reference for consulting personal; and return to the text time and again as needed. Learn and enjoy!

ABOUT THE INSTITUTE OF MEDICAL BUSINESS ADVISORS, INC.

The Institute of Medical Business Advisors (iMBA), Inc., is a leading practice management, economics, and medical valuation consulting firm, and focused provider of textbooks, CD-ROMs, handbooks, templates, tools, dictionaries, and on-site and distance education for the healthcare administration, financial management, and policy space. The firm also serves as a national resource center and referral alliance providing financial stability and managerial peace of mind to struggling physician clients. As competition increases, iMBA, Inc., is positioned to meet the collaborative needs of medical colleagues and institutional clients, today and well into the disruptive Health 2.0 participatory future.

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Although sponsored by the Institute of Medical Business Advisors (iMBA), Inc., we maintain an arm's-length relationship with the independent authors and firms who carried out research and prepared the book. The goal of iMBA, Inc., is to be unbiased to the extent possible and to promote protean professional perspectives and opinions.

Acknowledgments

Creating this interpretive text was a significant effort that involved all members of our firm. Over the past year we interfaced with various public resources such as state governments, the federal government, the Federal Register (FR), the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid (CMS), the Institute of Medicine (IOM), the National Research Council (NRC), and the U.S. Department of Health and Human Services (DHHS), as well as numerous private firms and professionals to discuss its contents.

Thank you all for believing in *Financial Management Strategies for Hospitals and Healthcare Organizations: Tools, Techniques, Checklists and Case Studies* and helping to make it a success.

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EDITOR-IN-CHIEF

Dr. David Edward Marcinko is a healthcare economist, managerial and technology futurist, and former board-certified surgeon from Temple University in Philadelphia. In the past, he edited seven practice-management books, three medical texts in two languages, five financial planning books, dozens of interactive CD-ROMs, and three comprehensive administrative dictionaries for physicians, accountants, attorneys, medical management consultants, and healthcare business advisors. Internationally recognized for his work, he provides litigation support and expert witness testimony in state and federal courts, and his clinical publications have been archived in the Library of Congress and the Library of Medicine at the National Institute of Health. His thought leadership essays have been cited in journals such as *Managed Care Executives, Healthcare Informatics, Medical Interface, Plastic Surgery Products, Teaching and Learning in Medicine, Orthodontics Today, Chiropractic Products, Journal of the American Medical Association, Podiatry Today, Investment Advisor Magazine, Registered Representative, Financial Advisor Magazine, CFP™ Biz (Journal of Financial Planning), Journal of the American Medical Association* (JAMA.ama-assn.org)*, The Business Journal for Physicians, and Physician's Money Digest;* by companies and professional organizations like the Medical Group Management Association (MGMA), American College of Medical Practice Executives (ACMPE), American College of Physician Executives (ACPE), American College of Emergency Physicians (ACEP), Health Management Associates (HMA), and PhysiciansPractice.com; and by academic institutions like the UCLA School of Medicine, Northern University College of Business, Creighton University, Medical College of Wisconsin, University of North Texas Health Science Center, Washington University School of Medicine, Emory University School of Medicine, the Goizueta School of Business at Emory University, University of Pennsylvania Medical and Dental Libraries, Southern Illinois College of Medicine, University at Buffalo Health Sciences Library, University of Michigan Dental Library, and the University of Medicine and Dentistry of New Jersey, among many others. Dr. Marcinko also has numerous primary and secondary editorial and reviewing roles to his credit.

Dr. Marcinko received his undergraduate degree from Loyola University, Maryland, completed his internship and residency at Atlanta Hospital and Medical Center, earned his business degree from the Keller Graduate School of Management (Chicago), and his financial planning diploma from Oglethorpe University (Atlanta). He is a Fellow of the American College of Foot and Ankle Surgeons. Dr. Marcinko was a licensee of the CERTIFIED FINANCIAL PLANNER™ Board of Standards (Denver) for a decade, and he holds the Certified Medical Planner™ designation (CMP™). He earned Series #7 (general securities), Series #63 (uniform securities state law), and Series #65 (investment advisory) licenses from the National Association of Securities Dealers (NASD), as well as a life, health, disability, variable annuity, and property-casualty license from the State of Georgia. Dr. Marcinko was also co-founder of an ambulatory surgery center that was sold to a public company, and he has been a Certified Professional in Healthcare Quality (CPHQ), a certified American Board of Quality Assurance and Utilization Review Physician (ABQAURP), a medical-staff vice president of a general hospital, an assistant residency director, a founder of a computer-based testing firm for doctors, and president of a regional physician practice-management corporation in the Midwest. He was a member of the American Health Information Management Association (AHIMA) and the Healthcare Information and Management Systems Society (HIMSS); a member

of the Microsoft Professional Accountant's Network (MPAN); website engineer and beta tester for Microsoft Office Live Essentials program, and a member of the Microsoft Health User's Group (MS-HUG); and a registered member of the United States Microsoft Partners Program (MPP). And, as president of a privately held physician practice-management corporation in 1998, he consolidated 95 solo medical practices with $50 million in revenues. Since 2011, he has been on the Physician Nexus Medical Advisory Board.

Currently, Dr. Marcinko is chief executive officer for the Institute of Medical Business Advisors, Inc. The firm is headquartered in Atlanta and works with a diverse list of individual and corporate clients. It sponsors the professional Certified Medical Planner™ (CMP™) charter designation program and counsels maverick physicians, health managers, and financial advisors making the transition to niche healthcare advisory careers. As a nationally recognized educational resource center and referral alliance, the Institute of Medical Business Advisors and its network of independent professionals provide solutions and managerial peace-of-mind to physicians, healthcare organizations, and their consulting business advisors. A favorite on the lecture circuit, Dr. Marcinko is often quoted in the media and frequently speaks on related topics throughout this country and Europe in an entertaining and witty fashion. He is also a social media pioneer and publisher of the *Medical Executive Post,* an influential syndicated Health 2.0 interactive blog forum. Dr. Marcinko is available to colleagues, clients, and the press at his corporate office in Atlanta, GA.

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Hope Rachel Hetico received her nursing degree (RN) from Valparaiso University and her Master of Science in Healthcare Administration (MSHA) from the College of St. Francis, in Joliette, Illinois. She is the author or editor of a dozen major textbooks and is a nationally known expert in managed medical care, medical reimbursement, case management, health insurance, security and risk management, utilization review, National Association of Healthcare Quality (NAHQ), Health Education Data Information Set (HEDIS), and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) rules and quality compliance regulations.

Prior to joining the Institute of Medical Business Advisors as Chief Operating Officer, Ms. Hetico was a hospital executive, financial advisor, insurance agent, Certified Professional in Healthcare Quality (CPHQ), and distinguished visiting assistant professor of healthcare administration for the University of Phoenix, Graduate School of Business and Management in Atlanta. She was also national corporate Director for Medical Quality Improvement at Abbey, and then Apria Healthcare, a public company in Costa Mesa, California.

A devotee of health information technology and heutagogy, Ms. Hetico was also responsible for leading the website www.CertifiedMedicalPlanner.org to the top of the exploding adult educational marketplace, expanding the online and on-ground CMP™ charter designation program and nurturing the company's rapidly growing list of medical colleagues and financial services industry clients.

Professor Hetico recently completed successful consulting engagements for Resurrection Health Care Preferred in Chicago, Illinois, and Saint Joseph's Hospital of Atlanta. She is currently on assignment for Emory University Hospital, Atlanta, Georgia.

PROJECT MANAGER

Mackenzie Hope Marcinko is an engineering, computer science, and healthcare informatics business management major at the University of Pittsburgh.

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Dr. Gary L. Bode was the chief financial officer (CFO) for a private mental healthcare facility, and previously the chief executive officer (CEO) of Comprehensive Practice Accounting, Inc., in Wilmington, NC. The firm specialized in providing tax solutions to medical professionals. Dr. Bode was a board-certified practitioner and managing partner of a multi-office medical group practice for a decade before earning his Master of Science degree in Accounting (MSA) from the University of North Carolina. He is a nationally known forensic health accountant, financial author, educator, and speaker. Areas of expertise include producing customized managerial accounting reports, practice appraisals and valuations, re-structurings, and innovative financial accounting, as well as proactive tax positioning and tax return preparation for healthcare facilities. Currently, Dr. Bode is chief accounting and valuation officer (CAVO) for the Institute of Medical Business Advisors, Inc., and CEO and founder of Gary Bode CPA, LLC.

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Section I

Costs and Revenues

Fundamental Principles

1 Managerial Medical Cost Accounting, Structure, Modeling, and Behavior

David Edward Marcinko and Hope Rachel Hetico

CONTENTS

INTRODUCTION

Controlling hospital and healthcare organization costs is a function of internal controls and the decision-making process to purchase assets and incur expenditures. This includes operations, processes, human resources, healthcare information technology (HIT), and purchasing. Thus, while

this was not, strictly speaking, a financial strategy in the past, cost accounting is now considered by most healthcare executives an important financial management function.

In today's competitive medical marketplace, managerial cost accounting is often used to set short- and long-term healthcare entity business policy. The information is used to increase profitability by decreasing costs, increasing revenues, or decreasing operating assets. More than ever, cost accounting can mean the difference between a successful healthcare entity and a moribund one. Managerial cost accounting consists of many goals, such as:

- Providing vital costing information for internal entity use
- Developing proactive future entity strategic plans information
- Accentuating the relevancy and flexibility of financial data
- Reviewing real-time medical service segments, rather than just total entity operations
- Acquiring nonfinancial healthcare business data

WHAT IS MEDICAL OR HEALTHCARE COST ACCOUNTING?

Definition: A method or means of accounting in which all incurred costs and expenses carrying out a medical activity or service, or accomplishing a patient care purpose, are collected, classified, and recorded. This data is then summarized and analyzed to arrive at a service, invoice, or selling price, or to determine where cost savings are possible.

Medical cost accounting is designed for healthcare managers and administrators. Because managers are making decisions only for their own unique entity, there is no need for the data to be comparable to similar data from other organizations. Instead, the important criterion is that the information must be relevant for decisions that healthcare administrators make in their particular environment. The accountants who handle the cost accounting information add value by providing good information to managers who are making decisions.

Cost accounting is regarded as the process of collecting, analyzing, summarizing, and evaluating various alternative courses of action involving costs, and then advising management on the most appropriate course of action based on the cost efficiency and capability of the management.

All health organizations are interested in costs. The control of past, present, and future costs is the job of all healthcare managers. In the entities that try to have profits, the control of costs affects them directly. Knowing the costs of medical services and products is essential for making decisions regarding price, payer mix of products, and services. As a result, there is a wide variety in the cost accounting systems for different hospitals and sometimes even in different parts of the same hospital or healthcare entity. Therefore, the following different healthcare cost accounting approaches are discussed in this textbook:

- Standard and lean accounting
- Activity-based cost (ABC) accounting
- Relative resource-based accounting
- Throughput cost accounting
- Cost-profit-volume analysis, and
- Revenue cycle accounting

In contrast to the financial accounting of a Certified Public Accountant (which considers money as the measure of economic performance), cost accounting considers money as the economic factor of production.

Managerial cost accounting is not governed by generally accepted accounting principles (GAAP) as promoted by the Financial Accounting Standards Board (FASB). Rather, a healthcare organization costing expert may be a Certified Cost Accountant (CCA) or Certified Managerial

Accountant (CMA), designated by the Cost Accounting Standards Board (CASB), an independent board within the Office of Management and Budget's (OMB) Office of Federal Procurement Policy (OFPP).

CASB consists of five members, including the OFPP Administrator, who serves as chairman, and four members with experience in government contract cost accounting (two from the federal government, one from the industry, and one from the accounting profession). The Board has the exclusive authority to make, promulgate, and amend cost accounting standards and interpretations designed to achieve uniformity and consistency in the cost accounting practices governing the measurement, assignment, and allocation of costs to contracts with the United States.

CASB's regulations are codified in 48 CFR, Chapter 99. The standards are mandatory for use by all executive agencies and by contractors and subcontractors in estimating, accumulating, and reporting costs in connection with pricing and administration of, and settlement of disputes concerning, all negotiated prime contract and subcontract procurement with the United States in excess of $500,000. The rules and regulations of the CASB appear in the federal acquisition regulation (see https://acquisition.gov).

North American Industry Classification System (NAICS) codes are used to categorize data for the federal government. In acquisition they are particularly critical for size standards. The NAICS codes are revised every five years by the Census Bureau. As of October 1, 2012, the federal acquisition community began using the 2012 version of the NAICS codes (available at http://www.census.gov/epcd/www/naics.html).

Healthcare organizations and consultants are obligated to comply with the following cost accounting standards (CAS) promulgated by federal agencies:

- CAS 501 requires consistency in estimating, accumulating, and reporting costs.
- CAS 502 requires consistency in allocating costs incurred for the same purpose.
- CAS 505 requires proper treatment of unallowable costs.
- CAS 506 requires consistency in the periods used for cost accounting.

The requirements of these standards are different from those of traditional financial accounting, which are concerned with providing static historical information to creditors, shareholders, and others outside the public or private healthcare organization.

Most healthcare organizations also contain **cost centers** that have no revenue budgets or mission to earn revenues for the organization. Examples include human resources, administration, housekeeping, nursing, and the like. These are known as responsibility centers with budgeting constraints but no earnings. Furthermore, **shadow cost centers** include certain non-cash or cash expenses, such as amortization, depreciation and utilities, and rent. These non-centralized shadow cost centers are cost-allocated for budgeting purposes and must be treated as costs.

COST BEHAVIOR, STRUCTURE, AND MODELING

Cost behavior is the study of how costs change in relation to variations in activity, service, or use. Kaizen costing, a Japanese method of cost reduction, is the pursuit of "continuous improvement" to reduce costs. Its prime purpose is to gather cost data for managerial control. Inherent in every Kaizen costing strategy are the following goals:

- Create waste-free systems with economic policy and procedures.
- Define clear leadership buy-in to financial initiatives.
- Sustain a culture of unrelenting continuous quality and economic improvement.

Installing a Kaizen costing culture is a top-down, bottom-up process. Like cost accounting itself, there is no single best way to implement it. Rather, mature and emerging healthcare organizations must find their own ways to effectively manage costs (see http://www.kaizen-institute.com).

Healthcare organizational costs may be divided into several categories, including fixed, variable, hybrid mixed, extraneous, differential, controllable, opportunity, sunk, relevant, carrying, future, and human resource costs. These costs are accounted for through some relevant range, which is an economic principle that can be defined as the range of medical service activity within which certain assumptions are neither too high nor too low, and relate to variable and fixed cost behavior with validity.

Types of Costs

Fixed Cost

A **fixed cost** can be viewed in the aggregate or on a per-unit basis, but it always remains constant. For example, clinic rent does not increase if hours are expanded into Saturday or Sunday.

Total fixed costs are not usually affected by changes in activity (i.e., clinic rent, taxes, insurance, depreciation, salaries of employees and key personnel). Rent is still due even if no patients are seen. A fixed cost remains constant, over the relevant range, even if the level of activity changes (i.e., busy summer or winter slow down). However, fixed costs decrease on a per-unit basis as the activity level rises and increase on a per-unit basis as the activity level falls.

Generally, decisions or changes do not alter fixed costs in the short term. They remain constant in total amount throughout a wide range of clinic activity, and they vary inversely with activity if expressed on a per-unit or per-patient basis.

Example

Assume that a physical therapy clinic dispenses durable medical equipment (DME) devices for various biomechanical conditions. The rent is fixed over the course of its lease at $9,000 per month. Therefore, the total and per-unit rent costs at various levels of device activity would be depicted as follows:

Fixed Rent: Cost per Month	Number of Uses	Fixed Rent Cost per Use
9,000	1	$9,000
9,000	10	900
9,000	100	90
9,000	200	45

The table shows the effect of volume (cost per month and number of uses) on the cost of rent per use. In other words, the more frequently the DME devices are used, the lower the fixed cost on a per-unit basis.

Variable Cost

Total **variable cost** increases and decreases in proportion to activity, while per-unit variable costs remain constant per unit. A variable cost changes in total in direct proportion to changes in the level of activity but is constant on a per-unit basis. Clinic costs that are normally variable with respect to volume include: DME, indirect labor, and indirect materials such as utilities, air conditioning, clerical costs, and other medical supplies. Generally, variable costs change as a direct result of making a decision or altering a course of action.