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FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS

AN INTRODUCTION TO FUNDAMENTAL TOOLS, CONCEPTS, AND APPLICATIONS

FOURTH EDITION

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Fourth Edition

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CONTENTS

To our families, for their love and patience

To our students and colleagues, for their invaluable insights and feedback

PREFACE

This book offers an introduction to the most used tools and techniques of health care financial management. It contains numerous examples from a variety of providers, including health maintenance organizations, hospitals, physician practices, home health agencies, nursing units, surgical centers, and integrated health care systems. The book avoids complicated formulas and uses numerous spreadsheet examples so that these examples can be adapted to problems in the workplace. For those desiring to go beyond the fundamentals, many chapters offer additional information in appendices. Each chapter begins with a detailed outline and concludes with a detailed summary, followed by a set of questions and problems. Answers to the questions and problems are available for download to instructors at www.josseybass.com/go/zelman4e. Finally, a number of *perspectives* are included in every chapter. Perspectives—examples from the real world—are intended to provide additional insight into a topic. In some cases these are abstracted from professional journals and in other cases they are statements from practitioners—in their own words.

The book begins with an overview in Chapter One of some of the key factors affecting the financial management of health care organizations in today's environment. Chapters Two, Three, and Four focus on the financial statements of health care organizations. Chapter Two presents an introduction to these financial statements. Financial statements are (perhaps along with the budget) the most important financial documents of a health care organization, and the bulk of this chapter is designed to help readers understand these statements, how they are created, and how they link together.

Chapter Three provides an introduction to health care financial accounting. This chapter focuses on the relationship between the actions of health care providers and administrators and the financial condition of the organization, examining how the numbers on the financial statements are derived, the distinction between cash and accrual bases of accounting—and the importance of defining what is actually meant by *cost*. By the time students complete Chapters Two and Three, they will have been introduced to a large portion of the terms used in health care financial management.

Building on Chapters Two and Three, Chapter Four focuses on interpreting the financial statements of health care organizations. Three approaches to analyzing statements are presented: horizontal, vertical, and ratio analysis. Great care has been taken to show how the ratios are computed and how to summarize the results.

Chapter Five focuses on the management of working capital: current assets and current liabilities. This chapter emphasizes the importance of cash management and provides many practical techniques for managing the inflows and outflows of funds through an organization, including managing the billing and collections cycle and paying off short-term liabilities.

Chapter Six introduces one of the most important concepts in long-term decision making—the time value of money. Chapter Seven builds on this concept, incorporating it into the investment decision by presenting several techniques for analyzing investment decisions: the payback method, net present value, and internal rate of return. Examples are given for both not-for-profit and for-profit organizations.

Once an investment has been decided on, it is important to determine how this asset will be financed, and this is the focus of Chapter Eight. Whereas Chapter Five deals with issues of short-term financing, Chapter Eight focuses on long-term financing, with a particular emphasis on issuing bonds.

Chapters Nine through Twelve introduce topics typically covered in a managerial accounting course. Chapter Nine focuses on the concept of cost and on using cost information—including fixed cost, variable cost, and break-even analysis—for short-term decision making. In addition to covering the key concepts, this chapter offers a set of rules to guide decision makers in making financial decisions. Chapter Ten explores budget models and the budgeting process. Several budget models are introduced, including program, performance, and zero-based budgeting. The chapter ends with an example of how to prepare each of the five main budgets: statistics budget, revenue budget, expense budget, cash budget, and capital budget. It also includes examples for various types of payors, including those with flat fee and capitation plans.

Chapter Eleven deals with responsibility accounting. It discusses the different types of responsibility centers and focuses on performance measurement in general and budget variance analysis in particular. Chapter Twelve discusses methods used by health care providers to determine their costs, primarily focusing on the step-down method and activity-based costing. This book concludes with Chapter Thirteen, "Provider Payment Systems." This chapter, parts of which were combined with

Chapter Twelve in the first edition, describes the evolution of the payment system in the United States, especially under health reform, as well as the specifics of various approaches to managing care and paying providers.

Major Changes in the Fourth Edition

As noted below, the major changes from the third edition involve

- New sections to reflect changes in the health care environment
- Updated data used in examples
- Updated data used in problems
- New problems
- New perspectives

Chapter One: The Context of Health Care Financial Management

Changes to Chapter One, the introductory chapter, provide an updated and current view of today's health care setting. Much has happened in the industry with the advent of value-based payment systems, population-based approaches to care, and the Patient Protection and Affordable Care Act (ACA). Other new concepts include patient-centered medical homes and accountable care organizations (ACOs).

Enhancements include updated statistics in the chapter text and all the pertinent exhibits. All perspectives have been replaced with ones that look at more recent events.

Chapter Two: Health Care Financial Statements

Chapter Two has been updated to include recent changes in the literature issued by the Financial Accounting Standards Board (FASB). These changes address revenue recognition presentation of bad debt for many hospitals, increases in the level of charity care disclosure, and the guidance for self-insured risks. All perspectives and problems have been updated. There are also new key terms.

Chapter Three: Principles and Practices of Health Care Accounting

In Chapter Three, the perspectives have been replaced with four updated versions. Problems 11 through 20 have been changed and updated.

Chapter Four: Financial Statement Analysis

Chapter Four has been updated to include the latest hospital benchmark ratios from the *2013 Almanac of Hospital Financial and Operating Indicators* (a reference work from Optum Inc.).

This chapter also addresses the change mentioned previously to the reporting of bad debt expense. All chapter problems have been updated as well. In addition, ratio problems 11 through 25 have been revised to provide a better picture of what each ratio analyzed means, beyond its being above or below the relevant benchmark.

Chapter Five: Working Capital Management

Chapter Five has new sections on improving the revenue cycle management process and on fraud and abuse. All perspectives and problems have been revised and updated.

Chapter Six: The Time Value of Money

Chapter Six now includes perspectives illustrating time value of money concepts in use, as well as a new section that explains the effective rate function. In addition, all the problem sets have been updated.

Chapter Seven: The Investment Decision

Chapter Seven now offers an expanded discussion of how organizations measure the discount rate or cost of capital. This discussion also explains the weighted average cost of capital, which includes the cost of debt and the cost of equity. The key components of the capital asset pricing model, which is used to measure cost of equity, are presented as well. In addition, all perspectives have been updated, and problems have been changed and updated.

Chapter Eight: Capital Financing for Health Care Providers

Chapter Eight now includes revisions to the explanation of interest rate swaps and a new section on bank qualified private placement loans. All the problems on lease financing and bond valuation have been revised and updated.

Chapter Nine: Using Cost Information to Make Special Decisions

In Chapter Nine, the conceptual diagram and the related explanation for understanding breakeven have been substantially revised, and all perspec-

tives have been replaced with updated versions. Most problems have updated figures, and three problems have been replaced with new ones. Also, a discussion of a new topic, physician practice valuation as it relates to the concept of breakeven, has been added as an appendix. This discussion also introduces the concepts of joint ventures and the value of downstream referrals.

Chapter Ten: Budgeting

Though the organization of Chapter Ten remains essentially the same, the basic model on which this chapter is based has been almost totally revised. The new model is a hospitalist practice that has only two services, a simplification from the previous edition. The discussion of supply chain operations and maximizing savings from evaluation of group purchasing organization discounts has been retained, but the supplies budget has been dropped. All perspectives have been replaced with updated versions. The problems have been revised to reflect the new content, though the general format is the same.

Chapter Eleven: Responsibility Accounting

The discussion of cost centers in Chapter Eleven has been modified slightly to recognize both service- and product-producing activities, and all perspectives and problem sets have been updated.

Chapter Twelve: Provider Cost-Finding Methods

The previous Chapter Twelve perspectives have been dropped, and two new ones have been added.

Chapter Thirteen: Provider Payment Systems

Chapter Thirteen has been updated to provide a discussion of evolving issues in provider payment. Among these issues are value-based purchasing, changes in payment for hospital readmissions and *never events*, and bundled payments. There is a more robust discussion on the mechanisms that Medicare uses to pay for hospital inpatient, hospital outpatient, and physician services. All perspectives have been replaced with updated versions. There are new key terms.

Glossary

The glossary has been completely updated, and includes each term defined in a chapter sidebar and each key term.

Web Pages and Additional Materials

The website for this book, including the instructor's manual and Excel spreadsheets, is located at www.josseybass.com/go/zelman4e. Comments about this book are invited and may be sent to publichealth@wiley.com.

ACKNOWLEDGMENTS

We attempt throughout this book to challenge and enlighten. Quantitative as well as qualitative issues are presented in an effort to help the reader better understand the wide range of issues considered under the topic *health care financial management*. We would like to thank the many students who over the past several years have pointed out errors, offered suggestions and improvements, and provided new ways to solve problems.

Our particular thanks go to Wafa Tarazi, Yurita Yakimin, Abdul Talib, Yen-Ju Lin, PhD, Tae Hyun Kim, PhD, and Julie Peterman, CFA, for their review of various chapters and problem sets. We also offer special thanks to Charles Walker, MBA, CPA, for his dedication and tireless efforts in reviewing the key chapters and problem sets of this book.

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The authors apologize for any errors or omissions in the above list and would be grateful for notifications to Michael McCue, at mccue@vcu.edu, of any corrections that should be incorporated in the next edition or reprint of this book and posted on the book's webpage.

The authors and the publisher gratefully acknowledge the copyright holders for permission to reproduce material in the perspectives throughout the book.

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FINANCIAL MANAGEMENT OF HEALTH CARE ORGANIZATIONS

CHAPTER 1

THE CONTEXT OF HEALTH CARE FINANCIAL MANAGEMENT

LEARNING OBJECTIVES

- Identify key elements that are driving changes in health care delivery.
- Identify key approaches to controlling health care costs and resulting ethical issues.
- Identify key changes in reimbursement mechanisms to providers.

Never before have health care professionals faced such complex issues and practical difficulties in trying to keep their organizations competitive and financially viable. With disruptive changes taking place in health care legislation and in payment, delivery, and social systems, health care professionals are faced with trying to meet their organizations' health-related missions in an environment of uncertainty and extreme cost pressures. These circumstances are stimulating high-performing provider organizations to focus on innovation to help lower costs and find creative ways to deliver services to a population whose members, while aging, are more informed and more demanding of a voice in their care and value for dollars spent than ever before.

The Patient Protection and Affordable Care Act (ACA) is the largest effort toward reform of the health care system since the advent of government entitlement programs in the 1960s. The goal of the ACA is to provide mechanisms to expand access to care, improve quality, and control costs.

But even before the enactment of the ACA in 2010, the Centers for Medicare and Medicaid Services (CMS) had articulated a vision for health care quality: "the right care for every person every time." CMS's stated objective is to promote safe, effective, timely, patient-centered, efficient, and equitable care.

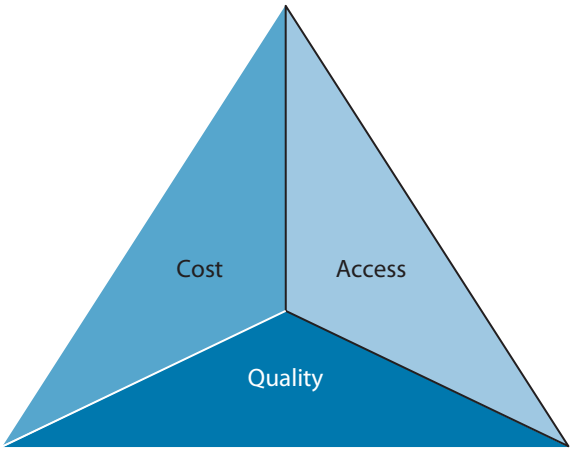
CMS also needs to control the rising cost of care, which has become unsustainable. To accomplish its objectives CMS has been working to replace its old financing system, which basically rewarded the quantity of care, with value-based purchasing (VBP), a system that improves the linkage between payment and the quality of care. The

Deficit Reduction Act of 2005 authorized CMS to develop a plan for VBP for Medicare hospital services beginning in fiscal year 2009. The ACA provided the implementation plan.

Many of these changes have been the source of controversy and lawsuits. Until President Obama's reelection in 2012, state governments as well as many providers faced uncertainty about whether the ACA provisions, even though found to be constitutional earlier in 2012, would be repealed. Some hesitated to move forward with implementation plans.

Regardless of whether or not all parties agree about the legislative outcome, the goal of the U.S. health care system remains to finance and deliver the highest possible quality to the most people at the lowest cost (Exhibit 1.1). But responses to today's challenges have resulted in a new business model that providers are embracing by controlling costs, developing new service offerings, and implementing new information technology, thereby creating added value (see Perspective 1.1 and Exhibit 1.2).

EXHIBIT 1.1 HEALTH SYSTEM GOALS REMAIN UNCHANGED



To establish a context for the topics covered in this text, this chapter highlights key issues affecting health care organizations. It is organized into three sections: (1) changing methods of health care financing and delivery, (2) addressing the high cost of care, and (3) establishing value-based payment mechanisms. Without question the health care industry is under-

PERSPECTIVE 1.1 HEALTH CARE SYSTEM IN REFORM

No matter what their political view is, people generally agree that the financial platform on which the health care system rests cannot be sustained. There is a clear need to reduce the proportion of the gross domestic product (GDP) spent on health care. Since the 1960s, hospitals have experienced increases in utilization, accompanied by increases in payments from government as well as from commercial payors. Medicare market basket updates have increased an average of 3.2 percent annually since that time. Under Medicare's new payment model, utilization and reimbursement are expected to decline over time, limiting market basket and utilization increases to only 1.5 percent to 2 percent a year. In addition, the value-based payment structure will reward those organizations with better quality while penalizing those with poorer scores. Since Medicaid and commercial payors tend to follow Medicare models, this effect will be magnified.

Several disruptive trends are changing the competitive landscape. Where commercial and not-for-profit providers had distinct differences, now they are both heavily focused on cost, quality, market share, and how quickly they can get innovative products to market. For example, Duke University Health System, a not-for-profit health system, and LifePoint Hospitals, Inc., a commercial health system, formed a joint venture, Duke LifePoint Healthcare, to provide community hospitals and regional medical centers with innovative means of enhancing services, recruiting and retaining physicians, and developing new service lines. Insurers such as Humana and private equity groups have acquired health systems. Certain integrated health care organizations, such as the Mayo Clinic and Geisinger Health System, are directed by physicians. New technologies like mobile apps provide mid-level providers and consumers with the latest evidence-based guidance to aid in diagnosis and management of health issues. And hospitals are consolidating, taking the view that big is good, bigger is better, and biggest is better still.

Source: Adapted from K. Kaufman and M. E. Grube, The transformation of America's hospitals: economics drives a new business model, in Kaufman, Hall, & Associates, *Futurescan 2012: Healthcare Trends and Implications, 2012–2017* (Health Administration Press, 2011).

going rapid change (Exhibit 1.3). The providers who are open-minded and informed, embrace change, and look for effective solutions will be the ones who thrive in this uncertain environment.

Changing Methods of Health Care Financing and Delivery

The push toward health care reform began back in the early 1990s during the Clinton administration. However, it did not make significant inroads

EXHIBIT 1.2 KEY ELEMENTS OF HEALTH CARE BUSINESS MODEL CHANGE

	Old Medicare Business Model	New Post Reform Business Model
Value proposition	More market share, more patients, more services, more revenues	Best possible quality at the lowest price
Direction of price	Upward—Saks Fifth Avenue	Downward—Walmart
Cost environment	Cost management	Cost structure
Direction of utilization	Always up since 1966, growth industry	Flat/maybe down, mature industry
Relationship between hospital and doctors	Parallel play	Highly coordinated and integrated
Payment	Fee-for-service	Something else
System of care	Patient services	Patient/population management
Organizing for value creation	One patient at a time	Comprehensive health care for covered population
Importance of scale	Small and medium hospitals could survive	Big, bigger, biggest

Source: Kaufman, Hall, & Associates, published in *Futurescan 2012: Healthcare Trends and Implications, 2012–2017*, Society for Healthcare Strategy and Market Development of the American Hospital Association and the American College of Healthcare Executives.

until President Obama signed the ACA into law in early 2010, though the ACA is complex and has numerous provisions. The provisions that are expected to have the most significant impact on the delivery and financing of care are noted in the following list and discussed in the remainder of this chapter.[1]

- *Requirement that almost all individuals have insurance coverage.* This individual mandate lies at the heart of the legislation.
- *Requirement that states create insurance exchanges* where individuals and small businesses can obtain coverage. The ACA contains requirements for an essential benefits package and provides for changes to the tax law that include penalties for individuals who choose not to have insurance.