

FINANCE

Basic Tools For Nonfinancial Managers

JUDITH J. BAKER R.W. BAKER **NEIL R. DWORKIN**



HEALTH CARE FINANCE

Basic Tools For Nonfinancial Managers

JUDITH J. BAKER, PhD, CPA R.W. BAKER, JD NEIL R. DWORKIN, PhD



World Headquarters Jones & Bartlett Learning 5 Wall Street Burlington, MA 01803 978-443-5000 info@jblearning.com www.jblearning.com

Jones & Bartlett Learning books and products are available through most bookstores and online booksellers. To contact Jones & Bartlett Learning directly, call 800-832-0034, fax 978-443-8000, or visit our website, www.jblearning.com.

Substantial discounts on bulk quantities of Jones & Bartlett Learning publications are available to corporations, professional associations, and other qualified organizations. For details and specific discount information, contact the special sales department at Jones & Bartlett Learning via the above contact information or send an email to specialsales@jblearning.com.

Copyright © 2018 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

The content, statements, views, and opinions herein are the sole expression of the respective authors and not that of Jones & Bartlett Learning, LLC. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not constitute or imply its endorsement or recommendation by Jones & Bartlett Learning, LLC and such reference shall not be used for advertising or product endorsement purposes. All trademarks displayed are the trademarks of the parties noted herein. Health Care Finance: Basic Tools For Nonfinancial Managers, Fifth Edition is an independent publication and has not been authorized, sponsored, or otherwise approved by the owners of the trademarks or service marks referenced in this product.

There may be images in this book that feature models; these models do not necessarily endorse, represent, or participate in the activities represented in the images. Any screenshots in this product are for educational and instructive purposes only. Any individuals and scenarios featured in the case studies throughout this product may be real or fictitious, but are used for instructional purposes only.

This publication is designed to provide accurate and authoritative information in regard to the Subject Matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the service of a competent professional person should be sought.

11835-3

Production Credits

VP, Executive Publisher: David D. Cella

Publisher: Michael Brown

Associate Editor: Danielle Bessette

Associate Production Editor: Rebekah Linga

Senior Marketing Manager: Sophie Fleck Teague

Manufacturing and Inventory Control Supervisor:

Amy Bacus

Composition: Integra Software Services Pvt. Ltd.

Cover Design: Theresa Manley

Rights & Media Specialist: Merideth Tumasz Media Development Editor: Shannon Sheehan

Cover Image: © LFor/Shutterstock

Printing and Binding: Edwards Brothers Malloy Cover Printing: Edwards Brothers Malloy

Library of Congress Cataloging-in-Publication Data

Names: Baker, Judith J., author. | Baker, R. W., author. | Dworkin, Neil R., author.

Title: Health care finance: basic tools for nonfinancial managers / Judith Baker, R.W. Baker, and Neil R. Dworkin. Description: Fifth edition. | Burlington, Massachusetts: Jones & Bartlett Learning, [2018] | Includes bibliographical references and index.

Identifiers: LCCN 2016054734 | ISBN 9781284118216 (pbk.)

Subjects: | MESH: Financial Management | Health Facilities-economics | Health Facility Administration |

United States

Classification: LCC RA971.3 | NLM W 80 | DDC 362.1068/1-dc23

LC record available at https://lccn.loc.gov/2016054734

6048

Table of Contents

New to This	Edition	xvii
Preface		xix
Acknowledgr	nents	xxi
About the Au	nthors	xxiii
PART I—HE	ALTHCARE FINANCE OVERVIEW	1
Chapter 1	Introduction to Healthcare Finance	3
	The History	3
	The Concept	4
	How Does Finance Work in the Healthcare Business?	4
	Viewpoints	4
	Why Manage?	5
	The Elements of Financial Management	5
	The Organization's Structure	5
	Two Types of Accounting	7
	Information Checkpoint	9
	Key Terms	9
	Discussion Questions	9
	Notes	9
Chapter 2	Four Things the Healthcare Manager Needs to Know About	
	Financial Management Systems	11
	What Does the Manager Need to Know?	11
	How the System Works in Health Care	11
	The Information Flow	12
	Basic System Elements	14
	The Annual Management Cycle	18
	Communicating Financial Information to Others	20
	Information Checkpoint	20
	Key Terms	20
	Discussion Questions	20
	Notes	91

iv TABLE OF CONTENTS

Chapter 3	The Digital Age: Changing the Landscape of Healthcare	
	Finance	
	High-Tech and High-Touch Approaches	
	Patient Engagement	
	Social Media	
	Resource Allocation	
	Changes in Health Information Technology	25
	Population Health and the Digital Age: Crossing at	
	the Intersection	
	Additional Trends and Complexities: Other Delivery Systems	27
	Summary	27
	Information Checkpoint	
	Key Terms	28
	Other Acronymns	28
	Discussion Questions	28
	Notes	28
PART II—RI	ECORD FINANCIAL OPERATIONS	3
Chapter 4	Assets, Liabilities, and Net Worth	33
	Overview	33
	What Are Examples of Assets?	34
	What Are Examples of Liabilities?	35
	What Are the Different Forms of Net Worth?	35
	Information Checkpoint	36
	Key Terms	36
	Discussion Questions	36
Chapter 5	Revenues (Inflow)	3
	Overview	3′
	Receiving Revenue for Services	37
	Sources of Healthcare Revenue	39
	Grouping Revenue for Planning and Control	42
	Information Checkpoint	45
	Key Terms	45
	Discussion Questions	45
	Notes	46
Chapter 6	Expenses (Outflow)	47
	Overview	
	Disbursements for Services	
	Grouping Expenses for Planning and Control	
	Cost Reports as Influencers of Expense Formats	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	54

Chapter 7	Cost Classifications	55
1	Distinction Between Direct and Indirect Costs	55
	Examples of Direct Cost and Indirect Cost	56
	Responsibility Centers	57
	Distinction Between Product and Period Costs	60
	Information Checkpoint	61
	Key Terms	
	Discussion Questions	61
	Notes	61
PART III—T	OOLS TO ANALYZE AND UNDERSTAND FINANCIAL OPERATIONS	63
Chapter 8	Cost Behavior and Break-Even Analysis	65
	Distinctions Among Fixed, Variable, and Semivariable Costs	65
	Examples of Variable and Fixed Costs	69
	Analyzing Mixed Costs	71
	Contribution Margin, Cost-Volume-Profit, and Profit-Volume Ratios	73
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	79
Chapter 9	Understanding Inventory and Depreciation Concepts	81
-	Overview: The Inventory Concept	81
	Inventory and Cost of Goods Sold ("Goods" Such as Drugs)	82
	Inventory Methods	83
	Inventory Tracking	84
	Inventory Distribution Systems	86
	Calculating Inventory Turnover	87
	Overview: The Depreciation Concept	88
	Book Value of a Fixed Asset and the Reserve for Depreciation	88
	Computing Tax Depreciation	92
	Information Checkpoint	93
	Key Terms	93
	Discussion Questions	93
	Notes	93
	Appendix 9-A A Further Discussion of Accelerated and	
	Units of Service Depreciation Computations	95
	Accelerated Book Depreciation Methods	95
Chapter 10	Staffing: Methods, Operations, and Regulations	103
	Staffing Requirements	103
	FTEs for Annualizing Positions	103
	Number of Employees Required to Fill a Position: Another Way to Calculate FTEs	106
	Regulatory Requirements Regarding Staffing	111

vi TABLE OF CONTENTS

	Summary	113
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	
PART IV—RI	EPORT AND MEASURE FINANCIAL RESULTS	117
Chapter 11	Reporting as a Tool	119
•	Understanding the Major Reports	
	Balance Sheet	
	Statement of Revenue and Expense	120
	Statement of Changes in Fund Balance/Net Worth	
	Statement of Cash Flows	
	Subsidiary Reports	
	Summary	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	
Chapter 12	Financial and Operating Ratios as Performance	
campus 14	Measures	127
	The Importance of Ratios	
	Liquidity Ratios	
	Solvency Ratios	
	Profitability Ratios	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	~	
Chapter 13	The Time Value of Money	135
•	Purpose	
	Unadjusted Rate of Return	
	Present-Value Analysis	
	Internal Rate of Return	
	Payback Period	
	Evaluations	
	Resources	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Note	
	Appendix 13-A Present-Value Table	
	(The Present Value of \$1.00)	141
	. ,	

	Appendix 13-B Compound Interest Table: Compound Interest	
	of \$1.00 (The Future Amount of \$1.00)	143
	Appendix 13-C Present Value of an Annuity of \$1.00	145
PART V—TO	OLS TO REVIEW AND MANAGE COMPARATIVE DATA	147
Chapter 14	Trend Analysis, Common Sizing, and Forecasted Data	149
	Common Sizing	149
	Trend Analysis	150
	Analyzing Operating Data	151
	Importance of Forecasts	152
	Operating Revenue Forecasts	153
	Staffing Forecasts	156
	Capacity Level Issues in Forecasting	
	Summary	
	Information Checkpoint	160
	Key Terms	160
	Discussion Questions	160
	Notes	160
Chapter 15	Using Comparative Data	161
	Overview	161
	Comparability Requirements	161
	A Manager's View of Comparative Data	162
	Uses of Comparative Data	163
	Making Data Comparable	168
	Constructing Charts to Show the Data	171
	Information Checkpoint	173
	Key Terms	173
	Discussion Questions	
	Note	174
PART VI—CO	ONSTRUCT AND EVALUATE BUDGETS	175
Chapter 16	Operating Budgets	177
	Overview	177
	Budget Viewpoints	178
	Budget Basics: A Review	
	Building an Operating Budget: Preparation	180
	Building an Operating Budget: Construction	181
	Working with Static Budgets and Flexible Budgets	183
	Budget Construction Summary	186
	Budget Review	186
	Information Checkpoint	187
	Key Terms	187

	Discussion Questions	187
	Notes	
	Appendix 16-A Creating a DRG Budget for Respiratory Care:	
	The Resource Consumption Approach	189
	Background	
	A DRG Budget for Respiratory Care	
	Notes	
	Appendix 16-B Reviewing a Comparative Operating Budget Report	
	The Comparative Report to Review	
	Checklist Questions and Answers for the Comparative Budget	
	Review	196
Chapter 17	Capital Expenditure Budgets	197
•	Overview	
	Creating the Capital Expenditure Budget	197
	Budget Construction Tools	
	Funding Requests	
	Evaluating Capital Expenditure Proposals	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Note	
	Appendix 17-A A Further Discussion of Capital Budgeting	
	Methods	205
	Assumptions	205
	Payback Method	
	Unadjusted Rate of Return (AKA Accountant's Rate of Return)	
	Net Present Value	
	Internal Rate of Return	
PART VII—T	OOLS TO PLAN, MONITOR, AND CONTROL FINANCIAL STATU	S209
Chapter 18	Variance Analysis and Sensitivity Analysis	
	Variance Analysis Overview	
	Three Types of Flexible Budget Variance	
	Two-Variance Analysis and Three-Variance Analysis Compared	
	Three Examples of Variance Analysis	214
	Summary	218
	Sensitivity Analysis Overview	218
	Sensitivity Analysis Tools	218
	Summary	222
	Information Checkpoint	222
	Key Terms.	222
	Discussion Questions	222
	Note	222

Chapter 19	Estimates, Benchmarking, and Other Measurement Tools	223
	Estimates Overview	223
	Common Uses of Estimates	223
	Example: Estimating the Ending Pharmacy Inventory	224
	Example: Estimated Economic Impact of a New Specialty in a	
	Physician Practice	225
	Other Estimates	226
	Importance of a Variety of Performance Measures	226
	Adjusted Performance Measures Over Time	227
	Benchmarking	227
	Economic Measures	229
	Measurement Tools	229
	Information Checkpoint	231
	Key Terms	
	Discussion Questions	
	Note	
Chapter 20	Understanding the Impact of Data Analytics and Big Data	233
•	Introduction	
	Defining Data Analytics	233
	Two Basic Approaches to Data Analytics	
	Data Analytics and Healthcare Analytics Serve Many Purposes	
	Data Mining	
	Impacts of Healthcare Analytics	
	Challenges for Healthcare Analytics	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	
PART VIII—FI	NANCIAL TERMS, COSTS, AND CHOICES	243
	, ,	
Chapter 21	Understanding Investment and Statistical Terms Used in Finance	245
•	Investment Overview	
	Cash Equivalents	245
	Governmental Guarantor: The FDIC	
	Long-Term Investments in Bonds	
	Investments in Stocks	
	Privately Held Companies Versus Public Companies	
	Investment Indicators	
	Statistics Overview	
	Commonly Used Statistical and Other Mathematical Terms	
	Information Checkpoint	
	Key Terms	
	Discussion Questions.	
	Notes	255

x TABLE OF CONTENTS

Chapter 22	Business Loans and Financing Costs	257
•	Overview of Capital Structure	
	Sources of Capital	
	The Costs of Financing	
	Management Considerations About Real Estate Financing	
	Management Decisions About Business Loans	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Appendix 22-A Sample Amortization Schedule	
Chapter 23	Choices: Owning Versus Leasing Equipment	263
•	Purchasing Equipment	
	Leasing Equipment	
	Buy-or-Lease Management Decisions	
	Accounting Principles Regarding Leases	
	Information Checkpoint	
	Key Terms.	
	Discussion Questions	
	Note	
		400
PART IX—ST	TRATEGIC PLANNING: A POWERFUL TOOL	271
Chapter 24	Strategic Planning and the Healthcare Financial Manager	273
	Major Components of the	
	Strategic Plan: Overview	273
	Introduction	273
	Six Major Components	273
	Varied Approaches to Strategic Planning	275
	Examples of Mission, Vision, and Value Statements	276
	Recognizing a Special Status or Focus Within the Statements	
	Financial Emphasis Within the Statements	
	Relaying the Message	279
	The Strategic Planning Cycle and Its Process Flow	
	Process Flow for Creating Goals, Objectives,	
	and Action Plans	281
	Process Flow for Creating Action Plans and Their	
	Performance Measures	282
	The Planning Cycle Over Time	283
	Managers' Responsibilities	
	Federal Governmental Agencies Must Prepare Strategic Plans	
	Why are Federal Planning Requirements Important to Us?	
	Introduction: Requirements, Plans, and Performance	
	An Example: The VA Office of Information Technology IT Strategic	400
	Planning Cycle	988
	Introduction	
		400

	The VA Office of Information Technology IT Strategic Planning Cycle:	000
	An Example	
	The VA Planning Cycle's Process Flow	
	Planning Cycle Definitions for this Example	
	Management Responsibilities Within the Planning Cycle	291
	Tools for Strategic Planning: Situational Analysis	
	and Financial Projections	
	Situational Analysis	293
	Financial Projections for Strategic Planning	294
	Case Study: Strategic Financial Planning in Long-Term Care	296
	Appendix 24-A: Sample SWOT Worksheets and Question Guides	296
	Information Checkpoint	296
	Key Terms.	297
	Discussion Questions	297
	Notes	297
	Appendix 24-A Sample SWOT Worksheets and Question Guides	299
	Introduction	299
	Scoring Summary Sheet for EHR Adoption and Implementation	299
	Three Internal Worksheets for Strengths and Weaknesses	299
	Internal Worksheet for EHR Information	
	Technology (IT) Staff	300
	Internal Worksheet for Other Staff Involved in EHR	302
	Internal Worksheet for Technology and Capital Funding	302
	External Worksheet for Opportunities and Threats	304
Chapter 25	Putting It All Together: Creating a Business Plan That Is Strategic	309
1	Overview	
	Elements of the Business Plan	309
	Preparing to Construct the Business Plan	
	The Service or Equipment Description	
	The Organization Segment	
	The Marketing Segment	
	The Financial Analysis Segment	
	The "Knowledgeable Reader" Approach to Your Business Plan	
	The Executive Summary	
	Assembling the Business Plan	
	Presenting the Business Plan	
	Strategic Aspects of Your Business Plan	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
Chapter 26	Understanding Strategic Relationships: Health Delivery Systems,	
T - 3- 3-	Finance, and Reimbursement	317
	Introduction	
	Defining Health Delivery Systems	
	, ,	

	Defining the Area of Healthcare Finance	319
	Defining the Area of Healthcare Reimbursement	320
	Strategic Relationship Between the Healthcare Delivery System and	
	Finance	321
	The Strategic Relationship Between Finance and Reimbursement	323
	Third-Party Reimbursement and Government Expenditures: Another	
	Strategic Relationship	325
	A New Focus on the Relationship Between Finance and Healthcare	
	Delivery	
	Reimbursement and Physicians: An Ongoing Strategic Challenge	327
	Information Checkpoint	
	Key Terms	329
	Other Acronyms	329
	Discussion Questions	329
	Notes	330
PART X—INF	ORMATION TECHNOLOGY AS A FINANCIAL AND STRATEGIC TOO	L331
Chapter 27	Understanding Value-Based Health Care and Its Financial and Digital	
	Outcomes	
	The Value-Based Concept: Introduction	
	Value-Based Progress in the Private Sector	
	Value-Based Progress in the Public Sector	
	Value-Based Education Efforts	
	Value-Based Legislative Reform	
	Quality Measurement: The Concept	
	Value-Based Public Reporting in the Private Sector	
	Value-Based Public Reporting in the Public Sector	
	Financial Outcomes	
	Digital Outcomes	
	Value-Based Strategic Planning by the Private Sector	
	Value-Based Strategic Planning by the Public Sector	
	Conclusion: The Future	
	Information Checkpoint	
	Key Terms	
	Other Acronyms	
	Discussion Questions	355
	Notes	355
Chapter 28	New Payment Methods and Measures:	961
	MIPS and APMs for Eligible Professionals	
	Introduction	
	Legislative Reform and MACRA: An Overview	
	Payment Choices: MIPS Versus APMs	
	MIPS Incentives	
	How Are MIPS Physicians and Other Eligible Professionals Paid?	366

	MIPS Composite Performance Score	367
	MIPS Performance Categories	368
	How MIPS Scoring Works	370
	MIPS Required Reporting Affects Payment	373
	Data Submission	
	APM Incentives—(Choice #2)	375
	Eligible Professionals Within APMs	376
	How Are Advanced APM EPs Paid?	378
	How Significant Participation Works	380
	Advanced APM Participation Standards	
	Scoring Standard for APMs	381
	Creating Physician-Focused Payment Models (PFPMS)	
	Building the Measurement Development Plan for MIPS and APMs:	
	Developing New Quality Measures	382
	Timelines for Developing Quality Measures	
	A Framework for MACRA Quality Measurement	
	Conclusion: Benefits and Costs of the Quality Payment Program	
	Three Incentive Programs as They Existed Before MIPS: A Reference.	
	Alternative Payment Models: A Reference	
	Information Checkpoint	
	Key Terms	392
	Discussion Questions	
	Notes	393
	Appendix 28-A Meaningful Use: Modified and Streamlined with	905
	a New Name	
	How Meaningful Use Has Evolved	
	Changes to Allowable MU Stages	
	Changes to Meaningful Use Requirements	400
	Conclusion: Advancing Care Information Becomes	401
	the New Meaningful Use	
	Acronyms	
	Notes	403
Chapter 29	Standardizing Measures and Payment in Post-Acute Care: New	
	Requirements	
	The Impact Act: New Directions for Post-Acute Care	
	Why Focus Attention on Post-Acute Care?	
	A New Alternative Payment Model for Four Care Settings	
	Standardized Data and Interoperability: The Keys to PAC Reform	
	Standardizing Assessment and Measure Domains for PAC Providers	
	Electronic Reporting Timelines for PAC Providers	
	Public Reporting: Impact Act Requirements	
	Impact Act Benefits and Costs: A Summary	
	Meeting Strategic Goals	
	Conclusion: Innovation in the Digital Age	
	The Future: Change Is Inevitable	418

	Information Checkpoint	418
	Key Terms	
	Other Acronyms	
	Discussion Questions	
	Notes	
Chapter 30	ICD-10 Implementation Continues: Finance and Strategic Challenges for the Manager	421
	ICD-10 E-Records Overview and Impact	
	Overview of the ICD-10 Coding System	
	ICD-10-CM and ICD-10-PCS Codes	
	E-Record Standards and the ICD-10 Transition	
	ICD-10 Benefits and Costs	
	ICD-10 Implementation: Systems Affected and Technology Issues	
	Understand Technology Issues and Problems	
	An Example: Comparison of Old and New Angioplasty Codes	
	ICD-10 Implementation: Training and Lost Productivity Costs	
	Who Gets Trained on ICD-10?	
	Costs of Training	
	Costs of Lost Productivity	
	Introduction: About ICD-10 Key Performance Indicators	
	Key Performance Indicators to Assess ICD-10 Progress	
	Using KPIs to Track ICD-10 Implementation Progress	
	Reviewing KPI Results	
	Creating Action Plans to Deal with Problems	
	Building Specific Action Plans to Correct Deficiencies	
	ICD-10 Implementation: Situational Analysis	
	Implementation Planning Recommendations	
	Situational Analysis Recommendations	
	Commencing an Information Technology SWOT Matrix for ICD-10	
	Summary	
	Information Checkpoint	
	Key Terms	
	Discussion Questions	
	Notes	
	Appendix 30-A ICD-10 Conversion Costs for a Midwestern	
	Community Hospital	445
	Authors' Note	
	Introduction	
	The Scenario	445
	Note	
PART XI—CA	ASE STUDIES	447
Chapter 31	Case Study: The Doctor's Dilemma	
	The Offer: "Sell Your Practice to Us"	449

	Seeking to Understand Healthcare Finance Reform	449
	Researching Acquisition Viewpoints and Industry Trends	
	Considering Other Physicians' Reactions	
	What Will Dr. Matthews Decide?	
	Notes	
Chapter 32	Case Study: Strategic Financial Planning in Long-Term Care	453
1	Background	
	Framework of the Board's Mandate	
	Industry Profile	454
	Feasibility Determination	
	Notes	
Chapter 33	Case Study: Metropolis Health System	459
•	Background	
	MHS Case Study	461
	Appendix 33-A Metropolis Health System's Financial Statements	
	and Excerpts from Notes	471
	Excerpts from Metropolis Health System Notes to Financial	
	Statements	477
	Appendix 33-B Comparative Analysis Using Financial Ratios and	
	Benchmarking Helps Turn Around a Hospital in the Metropolis	
	Health System	483
	Appendix 33-C Proposal to Add a Retail	
	Pharmacy to a Hospital in the Metropolis Health System	489
PART XII—M	IINI-CASE STUDIES	495
Chapter 34	Mini-Case Study 1: The Economic Significance of Resource	
	Misallocation: Client Flow Through the Women, Infants,	
	and Children Public Health Program	
	Confronting the Operational Problem	
	The Environment	
	The Peak-Load Problem	
	Method	
	Results	499
Chapter 35	Mini-Case Study 2: Technology in Health Care: Automating	
	Admission Processes	
	Assess Admissions Process	
	Areas to Automate	
	Fax and Document Management	
	Communication Is Important	
	Referral Tracking and Approval	
	Analyzing Referral Activity	
	Hours Saved	505

xvi Table of Contents

Appendix A	Checklists	507
Glossary		511
Examples and	Exercises, Supplemental Materials, and Solutions	525
Examples	and Exercises	525
Suppleme	entary Materials: The Mechanics of Percentage Computations	578
Solutions	to Practice Exercises	578
Index		591

New to This Edition

The *Fifth Edition* continues to provide practical information, with examples taken from real life in the healthcare finance world. For example, we have added the following:

NEW MATERIAL IN THE 5TH EDITION:

- Chapter 3 "The Digital Age: Changing the Landscape of Healthcare Finance"—This new chapter is about understanding the impact of data analytics and big data, along with other important trends in the changing landscape of healthcare finance. It is important to recognize that digital advancements in health care are the drivers that enable innovation.
- Chapter 26 "Understanding Strategic Relationships: Health Delivery Systems, Finance and Reimbursement"—This new chapter focuses upon describing the strategic relationships between and among health delivery systems, finance, and reimbursement. This chapter assists a manager in recognizing both differences and interrelationships and in applying this recognition to their own organization's structure.
- Chapter 27 "Understanding Value-Based Health Care and Its Financial and Digital Outcomes"—Value-based performance, the subject of this new chapter, is particularly important because it is the key to both improving patient care and reforming payment systems. Healthcare organizations should define what value means and make sure that definition is shared across the entire entity.
- Chapter 28 "New Payment Methods and Measures: MIPS and APMs for Eligible Professionals"—This new chapter highlights significant legislation and regulations that change payment methods and performance measures for physicians and other eligible professionals. The new payment method for physicians hinges upon proper reporting of new performance measures. The new system is a true reform, as it replaces a physician payment system that has been in effect for decades.
- Appendix 28-A "Meaningful Use: Modified and Streamlined with a New Name"—This new appendix describes the evolution of meaningful use before and after its transition into the new physician performance measures that are described in Chapter 28.
- Chapter 29 "Standardizing Measures and Payment in Post-Acute Care: New Requirements"—This new
 chapter is about important legislation and regulations that standardize measures and require studies about
 payment reform for post-acute care. This means performance measures for skilled nursing facilities, home
 health agencies, inpatient rehabilitation facilities, and long-term care hospitals are being standardized.
 Models for a patient-centered payment system that cuts across all four care settings are also being created.
- Chapter 30 "ICD-10 Implementation Continues: Finance and Strategic Challenges for the Manager"—This
 updated chapter focuses upon challenges for the manager within ICD-10 implementation. An all-new
 section introduces useful Key Performance Indicators that are used to assess an organization's ICD-10
 implementation progress.

Other new material in this edition includes the following:

- Chapter 9 "Understanding Inventory and Depreciation Concepts"—A new section about drug distribution systems in use in hospitals has been added to this chapter.
- Chapter 10 "Staffing: Methods, Operations, and Regulation"—A new section has been added describing
 legislation that requires reporting "verifiable and auditable" payroll information for the "Nursing Compare" website, along with information about existing Certificate of Need regulations.

xviii New to This Edition

- Appendix 16-A "Creating A DRG Budget for Respiratory Care: The Resource Consumption Approach"—This new appendix sets out a step-by-step DRG budget methodology.
- Appendix 16-B "Reviewing a Comparative Operating Budget Report"—This new appendix describes the
 review of a section from an actual operating budget report.
- Chapter 21 "Understanding Investment and Statistical Terms Used in Finance"—This chapter was originally only about investment terms; it now has a new section about understanding statistical terms.
- Chapter 31 "Case Study: The Doctor's Dilemma"—This new case study is about a physician deciding
 whether or not to sell his practice to a health delivery system.

MATERIAL OMITTED FROM THIS EDITION

- Two Fourth Edition chapters and a Fourth Edition appendix have been omitted because they are becoming
 outdated. This includes the following: Chapter 24 "Information Technology and EHR: Adoption Requirements, Initiatives, and Management Decisions" has been replaced with the new value-based chapter.
- Appendix 24-A Accordingly, the e-Prescribing (eRx) appendix has also been omitted because the incentive program is ending.
- Chapter 25 "Electronic Health Records Framework: Incentives, Standards, Measures, and Meaningful Use" has been omitted because the incentives are ending.
- Relevant additions and deletions have been made to the "Examples and Exercises" section.

To summarize: A fundamental theme in the *Fifth Edition* is that healthcare financing is embracing the digital age. This is manifested by its coverage of electronic health records (EHRs), data analytics, value-based health care, and social media, among other topics. In this era of population health and the resulting need for clinical integration, data-driven collaboration has the potential to improve outcomes and lower costs, as well as more effectively engage the patient. The upshot: Everything is connected.

Our world of work is divided into three parts: the healthcare consultant, the instructor, and the writer. Over the years, we have taught managers in seminars, academic settings, and corporate conference rooms. Most of the managers were mid-career adults, working in all types of healthcare disciplines. We taught them and they taught us. One of the things they taught us was this: A nonfinancial manager pushed into dealing with the world of finance often feels a dislocation and a change of perspective, and that experience can be both difficult and exciting. We have listened to their questions and concerns as these managers grapple with this new world. This book is the result of their experiences, and ours.

The book is designed for use by a manager (or future manager) who does not have an educational background in financial management. It has long been our philosophy that if you can truly understand how a thing works—whatever it is—then you own it. This book is created around that philosophy. In other words, we intend to make financial management transparent by showing how it works and how a manager can use it.

USING THE BOOK

All our examples are drawn from the healthcare industry. Thus users will find examples and exercises covering many types of healthcare settings and providers, including hospitals, clinics, physician practices, long-term care facilities, and home health agencies.

Standard Elements

Each chapter within these parts contains the following four elements:

- "Progress Notes" set out learning objectives at the beginning of each chapter.
- An "Information Checkpoint" segment at the end of each chapter tells the user three things: information needed, where this information can be obtained, and how this information can be used.
- A "Key Terms" section follows the "Information Checkpoint." Every Key Term is defined in the Glossary; it is also bold faced the first time it appears in the text.
- The "Discussion Questions" segment inquires about practical uses of chapter material and encourages responses based upon experience.

Structure and Topics

The book is structured in 12 parts, as follows.

Part I: Healthcare Finance Overview [Three chapters; one is new]

Part II: Record Financial Operations [Four chapters]

Part III: Tools To Analyze and Understand Financial Operations [Three chapters plus appendix; new text added to two chapters]

Part IV: Report and Measure Financial Results [Three chapters plus three appendices]

Part V: Tools to Review and Manage Comparative Data [Two chapters]

Part VI: Construct and Evaluate Budgets [Two chapters plus two new appendices]

Part VII: Tools to Plan, Monitor, and Control Financial Status [Three chapters; one is new]

Part VIII: Financial Terms, Costs, and Choices [Three chapters; one entire new section]

XX PREFACE

Part IX: Strategic Planning: A Powerful Tool [Three chapters plus one appendix; one chapter is new]
Part X: Information Technology As A Financial and Strategic Tool [Four chapters plus two appendices; three chapters and one appendix are all new and the fourth chapter has been substantially revised. In addition, two previous chapters and a previous appendix that have become outdated have been omitted and replaced in the Fifth Edition.]
Part XI: Case Studies [One new case study about the doctor's dilemma,one case study about strategic financial planning in long-term care, and a group of four interrelated case studies about the Metropolis Health System]

Part XII: Mini-Case Studies [Two mini-case studies; one concerns resource misallocation in a public health clinic and the other is about automating admissions processes]

More About the Metropolis Health System Case Studies

A group of four case studies about the Metropolis Health System (MHS) represents a comprehensive suite of information. This section includes the major case study about the system, followed by an appendix containing an MHS financial statement and excerpts from notes. A second case study appendix shows how one MHS hospital was turned around using comparative analysis of benchmarks and statistical data. A third case study appendix describes a detailed proposal to add a retail pharmacy to another of the MHS hospitals. The Metropolis grouping thus provides an interactive suite of case study material.

Supplemental Resources

At the back of the book you will find additional resources as follows, all of which have been updated for the *Fifth Edition*:

- An Appendix containing Checklists
- A Glossary
- · Examples and Exercises, with Solutions
- · Other Supplemental Materials

© LFor/Shutterstor

Acknowledgments

With this edition we welcome Dr. Neil R. Dworkin as our coauthor. Neil brings a formidable combination of both educational and practical on-the-ground experience in health care. He also brings fresh viewpoints that are as valuable as his career achievements.

The *Fifth Edition* has evolved with the help of numerous instructors and students who give us feedback; we listen. We owe a great debt of thanks to Mike Brown, our long-suffering and understanding publisher. And we thank our *Fifth Edition* first readers, including Teresa Schroder, AuD, CCC-A, along with others who prefer to be anonymous; you know who you are. The continuing support and suggestions of Janet Feldman, PhD, RN, Vice President, Qualitas Associates, along with certain continuing technical support provided by Colleene McMurphy, CPA, of McMurphy and Associates, are also appreciated.

The input from finance sessions we taught as Adjunct Faculty at Texas Woman's University in Dallas also contributed to shaping the content of the *Fifth Edition*. Our continued gratitude goes to Craig Sheagren, Senior Vice President/CFO, McDonough District Hospital, Macomb, Illinois; and Nancy M. Borkowski, PhD, Professor, Department of Professional Management/Health Management, St. Thomas University, Miami, Florida, for their encouragement, information, suggestions, and assistance with the original concept of the book. We also thank John Brocketti, Chief Financial Officer, SUMA Health System, Akron, Ohio; Christine Pierce, Partner, The Resource Group, Cleveland, Ohio; and Dr. Frank Welsh, Cincinnati, Ohio, for their ongoing information and suggestions.

Many others also contributed suggestions, recommendations, and information to help shape and refine the initial concept. We continue to acknowledge these individuals, listed below, including their original affiliations:

Ian G. Worden, CPA, Regional Vice President of Finance/CFO, PeaceHealth, Eugene, Oregon Carol A. Robinson, Medical Records Director, Titus Regional Medical Center, Mt. Pleasant, Texas

John Congelli, Vice President of Finance, Genesee Memorial Hospital, Batavia, New York

Charles A. Keil, Cost Accountant, Genesee Memorial Hospital, Batavia, New York

George O. Kimbro, CPA, CFO, Hunt Memorial Hospital District, Greenville, Texas

Bob Gault, Laboratory Director, Hunt Memorial Hospital District, Greenville, Texas

Ted J. Stuart, Jr., MD, MBA, Northwest Family Physicians, Glendale, Arizona

Mark Potter, EMS Director, Hopkins County Memorial Hospital, Sulphur Springs, Texas

Leonard H. Friedman, PhD, Assistant Professor, Coordinator, Health Care Administration Program, Oregon State University, Corvallis, Oregon

Patricia Chiverton, EdD, RN, Dean, University of Rochester School of Nursing, Rochester, New York

Donna M. Tortoretti, RNC, Chief Operating Officer, Community Nursing Center, University of Rochester School of Nursing, Rochester, New York

Billie Ann Brotman, PhD, Professor of Finance, Department of Economics and Finance, Kennesaw State University, Kennesaw, Georgia

© LFor/Shutterstor

About the Authors

Judith J. Baker, PhD, CPA, has worked with healthcare systems, costing, finance, and reimbursement throughout her career. With over 40 years' experience in health care, she is a co-founder of Resource Group, Ltd., a healthcare consulting firm. As a CMS contractor, she has assisted in validation of costs for new programs and for rate setting and has also consulted on cost report design. More recently, she has provided activity-based costing, rate setting, and organizational systems expertise to national clients within the healthcare industry.

Judith's doctorate is in human and organizational systems, with a concentration in healthcare costing systems. She has served as adjunct faculty at the University of Texas at Houston and the Texas Woman's University in Dallas, as well as the University of Rochester School of Nursing and the Case Western Reserve University Francis Payne Bolton School of Nursing.

Judith has written numerous peer-reviewed articles and has served as Consulting Editor for Aspen Publishers, Inc. Her books include Activity-Based Costing and Activity-Based Management for Health Care, Prospective Payment for Long-Term Care, Prospective Payment for Home Health Agencies, Management Accounting for Health Care Organizations (with Robert Hankins) and Essentials of Cost Accounting for Health Care Organizations (with Steven Finkler and David Ward). She is Editor Emeritus of the quarterly Journal of Healthcare Finance.

R. W. Baker, JD, is also a co-founder of Resource Group, Ltd., a healthcare consulting firm. He has more than 40 years of experience in health care and has designed, directed, and administered numerous financial impact studies for healthcare providers. His early studies centered around facility-specific MDS data collection and analysis. He and his firm subcontracted to the HCFA/CMS Nursing Home Case Mix and Quality Demonstration for over nine years. More recently he has designed, implemented, and managed a series of national time studies for pharmaceutical and medical device clients.

R. W. is the editor of continuing professional education seminar manuals and training manuals for facility personnel and for research staff members. He served as a Consulting Editor with Aspen Publishers, Inc. and is co-author of A Step-by-Step Guide to the Minimum Data Set (with Dr. Janet Feldman).

Neil R. Dworkin, PhD, is Emeritus Associate Professor of Management at Western Connecticut State University, where he was Coordinator of the Masters in Health Administration Program and where he taught Strategic Management, Finance, Marketing, Health Policy, and Health Delivery Systems. He is presently an adjunct faculty member at Charter Oak State College, which is part of the Connecticut State University System and where he teaches Continuous Quality Improvement in Health Care and Health Care Systems and Administration.

Neil has hospital administration experience, and has been a nursing home administrator in New York and Connecticut. He has over 40 years' experience in the healthcare field. He was the lead author in a three-article series on "Managerial Socialization in Short-Term Hospitals" that was published in *Hospital Topics* and *Problems and Perspectives in Management*. Neil has also served as an editor of *The Journal of Health Administration Education*.

PART

Healthcare Finance Overview

Introduction to Healthcare Finance

© LFor/Shuttersto

THE HISTORY

Financial management has a long and distinguished history. Consider, for example, that Socrates wrote about the universal function of management in human endeavors in 400 B.C. and that Plato developed the concept of specialization for efficiency in 350 B.C. Evidence of sophisticated financial management exists from much earlier times: the Chinese produced a planning and control system in 1100 B.C., a minimum-wage system was developed by Hammurabi in 1800 B.C., and the Egyptians and Sumerians developed planning and record-keeping systems in 4000 B.C.¹

Many managers in early history discovered and rediscovered managerial principles while attempting to reach their goals. Because the idea of management thought as a discipline had not yet evolved, they formulated principles of management because certain goals had to be accomplished. As management thought became codified over time, however, the building of techniques for management became more organized. Management as a discipline for educational purposes began in the United States in 1881. In that year, Joseph Wharton created the Wharton School, offering college courses in business management at the University of Pennsylvania. It was the only such school until 1898, when the Universities of Chicago and California established their business schools. Thirteen years later, in 1911, 30 such schools were in operation in the United States.²

Over the long span of history, managers have all sought how to make organizations work more effectively. Financial management is a vital part of organizational effectiveness. This text's goal is to provide the keys to unlock the secrets of financial management for nonfinancial managers.

Progress Notes

After completing this chapter, you should be able to

- 1. Discuss the three viewpoints of managers in organizations.
- 2. Identify the four elements of financial management.
- Understand the differences between the two types of accounting.
- Identify the types of organizations.
- Understand the composition and purpose of an organization chart.

THE CONCEPT

A Method of Getting Money in and out of the Business

One of our colleagues, a nurse, talks about the area of healthcare finance as "a method of getting money in and out of the business." It is not a bad description. As we shall see, revenues represent inflow and expenses represent outflow. Thus, "getting money in" represents the inflow (revenues), whereas "getting money out" (expenses) represents the outflow. The successful manager, through planning, organizing, controlling, and decision making, is able to adjust the inflow and outflow to achieve the most beneficial outcome for the organization.

HOW DOES FINANCE WORK IN THE HEALTHCARE BUSINESS?

The purpose of this text is to show how the various elements of finance fit together: in other words, how finance works in the healthcare business. The real key to understanding finance is understanding the various pieces and their relationship to each other. If you, the manager, truly see how the elements work, then they are yours. They become your tools to achieve management success.

The healthcare industry is a service industry. It is not in the business of manufacturing, say, widgets. Instead, its essential business is the delivery of healthcare services. It may have inventories of medical supplies and drugs, but those inventories are necessary to service delivery, not to manufacturing functions. Because the business of health care is service, the explanations and illustrations within this book focus on the practice of financial management in the service industries.

VIEWPOINTS

The managers within a healthcare organization will generally have one of three views: (1) financial, (2) process, or (3) clinical. The way they manage will be influenced by which view they hold.

- 1. The financial view. These managers generally work with finance on a daily basis. The reporting function is part of their responsibility. They usually perform much of the strategic planning for the organization.
- 2. The process view. These managers generally work with the system of the organization. They may be responsible for data accumulation. They are often affiliated with the information system hierarchy in the organization.
- 3. The clinical view. These managers generally are responsible for service delivery. They have direct interaction with the patients and are responsible for clinical outcomes of the organization.

Managers must, of necessity, interact with one another. Thus, managers holding different views will be required to work together. Their concerns will intersect to some degree, as illustrated by **Figure 1–1**. The nonfinancial manager who understands healthcare finance will be able to interpret and negotiate successfully such interactions between and among viewpoints.

In summary, financial management is a discipline with a long and respected history. Healthcare service delivery is a business, and the concept of financial management assists in balancing the inflows and outflows that are a part of the business.

WHY MANAGE?

Business does not run itself. It requires a variety of management activities in order to operate properly.

Process Clinical

Figure 1–1 Three Views of Management Within an Organization.

THE ELEMENTS OF FINANCIAL MANAGEMENT

There are four recognized elements of financial management: (1) planning, (2) controlling, (3) organizing and directing, and (4) decision making. The four divisions are based on the purpose of each task. Some authorities stress only three elements (planning, controlling, and decision making) and consider organizing and directing as a part of the controlling element. This text recognizes organizing and directing as a separate element of financial management, primarily because such a large proportion of a manager's time is taken up with performing these duties.

- 1. Planning. The financial manager identifies the steps that must be taken to accomplish the organization's objectives. Thus, the purpose is to identify objectives and then to identify the steps required for accomplishing these objectives.
- 2. Controlling. The financial manager makes sure that each area of the organization is following the plans that have been established. One way to do this is to study current reports and compare them with reports from earlier periods. This comparison often shows where the organization may need attention because that area is not effective. The reports that the manager uses for this purpose are often called feedback. The purpose of controlling is to ensure that plans are being followed.
- 3. Organizing and directing. When organizing, the financial manager decides how to use the resources of the organization to most effectively carry out the plans that have been established. When directing, the manager works on a day-to-day basis to keep the results of the organizing running efficiently. The purpose is to ensure effective resource use and provide daily supervision.
- 4. Decision making. The financial manager makes choices among available alternatives. Decision making actually occurs parallel to planning, organizing, and controlling. All types of decision making rely on information, and the primary tasks are analysis and evaluation. Thus, the purpose is to make informed choices.

THE ORGANIZATION'S STRUCTURE

The structure of an organization is an important factor in management.

Organization Types

Organizations fall into one of two basic types: profit oriented or nonprofit oriented. In the United States, these designations follow the taxable status of the organizations. The profit-oriented entities, also known as proprietary organizations, are responsible for paying income taxes. Proprietary subgroups include individuals, partnerships, and corporations. The non-profit organizations do not pay income taxes.

There are two subgroups of nonprofit entities: voluntary and government. Voluntary nonprofits have sought tax-exempt status. In general, voluntary nonprofits are associated with churches, private schools, or foundations. Government nonprofits, on the other hand, do not pay taxes because they are government entities. Government nonprofits can be (1) federal, (2) state, (3) county, (4) city, (5) a combination of city and county, (6) a hospital taxing district (with the power to raise revenues through taxes), or (7) a state university (perhaps with a teaching hospital affiliated with the university). The organization's type may affect its structure. **Exhibit 1–1** summarizes the subgroups of both proprietary and nonprofit organizations.

Organization Charts

In a small organization, top management will be able to see what is happening. Extensive measures and indicators are not necessary because management can view overall operations. But in a large organization, top management must use the management control system to understand what is going on. In other words, to view operations, management must use measures and in-

Exhibit 1–1 Types of Organizations

Profit Oriented—Proprietary

Individual

Partnership

Corporation

Other

Nonprofit—Voluntary

Church Associated

Private School Associated

Foundation Associated

Other

Nonprofit—Government

Federal

State

County

City

City-County

Hospital District

State University

Other

dicators because he or she cannot get a firsthand overall picture of the total organization.

As a rule of thumb, an informal management control system is acceptable only if the manager can stay in close contact with all aspects of the operation. Otherwise, a formal system is required. In the context of health care, therefore, a one-physician practice (Figure 1–2) could use an informal method, but a hospital system (Figure 1–3) must use a formal method of management control.

The structure of the organization will affect its financial management. Organization charts are often used to illustrate the structure of the organization. Each box on an organization chart represents a particular area of management responsibility. The lines between the boxes are lines of authority.

In the health system organization chart illustrated in Figure 1–3, the president/chief executive officer oversees seven senior vice presidents. Each senior vice president has vice presidents reporting to him or her in each

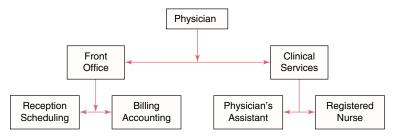


Figure 1–2 Physician's Office Organization Chart. Courtesy of Resource Group, Ltd., Dallas, Texas.

particular area of responsibility designated on the chart. These vice presidents, in turn, have an array of other managers reporting to them at varying levels of managerial responsibility.

The organization chart also shows the degree of decentralization within the organization. Decentralization indicates the delegating of authority for decision making. The chart thus illustrates the pattern of how managers are allowed—or required—to make key decisions within the particular organization.

The purpose of an organization chart, then, is to indicate how responsibility is assigned to managers and to indicate the formal lines of communication and reporting.

TWO TYPES OF ACCOUNTING

Financial

Financial accounting is generally for outside, or third party, use. Thus, financial accounting emphasizes external reporting. External reporting to third parties in health care includes, for example, government entities (Medicare, Medicaid, and other government programs) and health plan payers. In addition, proprietary organizations may have to report to stockholders, taxing district hospitals have to report to taxpayers, and so on.

Financial reporting for external purposes must be in accordance with generally accepted accounting principles. Financial reporting is usually concerned with transactions that have already occurred: that is, it is retrospective.

Managerial

Managerial accounting is generally for inside, or internal, use. Managerial accounting, as its title implies, is used by managers. The planning and control of operations and related performance measures are common day-by-day uses of managerial accounting. Likewise, the reporting of profitability of services and the pricing of services are other common ongoing uses of managerial accounting. Strategic planning and other intermediate and long-term decision making represent an additional use of managerial accounting.³

Managerial accounting intended for internal use is not bound by generally accepted accounting principles. Managerial accounting deals with transactions that have already occurred, but it is also concerned with the future, in the form of projecting outcomes and preparing budgets. Thus, managerial accounting is prospective as well as retrospective.

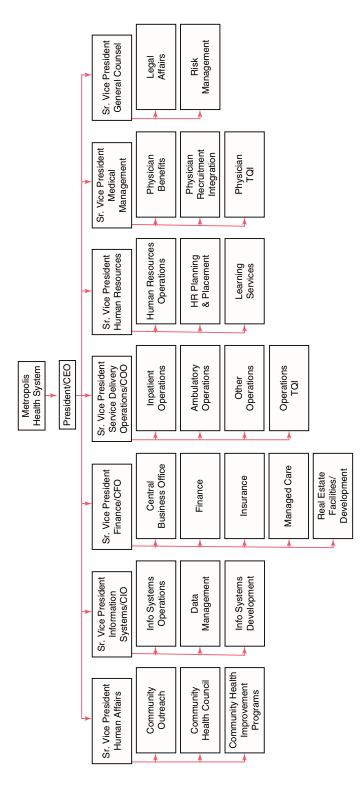


Figure 1-3 Health System Organization Chart. Courtesy of Resource Group, Ltd., Dallas, Texas.



INFORMATION CHECKPOINT

What is needed? Reports for management purposes.

Where is it found? With your supervisor. How is it used? To manage better. What is needed? Organization chart.

Where is it found? With your supervisor or in the administrative offices.

How is it used? To better understand the structure and lines of authority in

your organization.



KEY TERMS

Controlling

Decision Making

Financial Accounting

Managerial Accounting

Nonprofit Organization (also see Voluntary Organization)

Organization Chart

Organizing

Planning

Proprietary Organization (also see Profit-Oriented Organization)



DISCUSSION QUESTIONS

- 1. What element of financial management do you perform most often in your job?
- 2. Do you perform all four elements? If not, why not?
- 3. Of the organization types described in this chapter, what type is the one you work for?
- 4. Have you ever seen your company's organization chart? If so, how decentralized is it?
- 5. If you receive reports in the course of your work, do you believe that they are prepared for outside (third party) use or for internal (management) use? What leads you to believe this?

NOTES

- 1. C. S. George, Jr., *The History of Management Thought*, 2nd ed. (Englewood Cliffs, NJ: Prentice Hall, 1972), 1–27.
- 2. Ibid., 87.
- 3. S. Williamson et al., Fundamentals of Strategic Planning for Healthcare Organizations (New York: The Haworth Press, 1997).