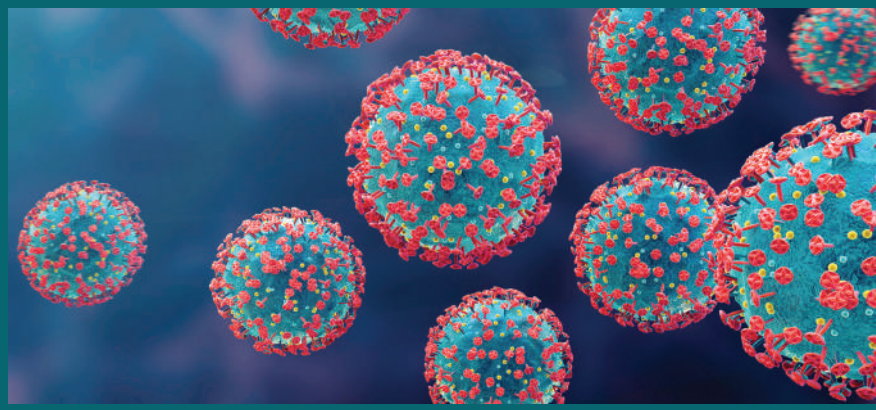




FUNDAMENTALS OF MEDICAL PRACTICE MANAGEMENT

SECOND EDITION



STEPHEN L. WAGNER




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Fundamentals of Medical Practice Management

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Fundamentals of Medical Practice Management

STEPHEN L. WAGNER

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This book is dedicated to my wife Cindy and to my children Elizabeth, Charlie, and my late son Matthew, who passed away since the first edition was published. His health struggles over many years have always inspired me to help create a better healthcare system.

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BRIEF CONTENTS

Preface xv

Acknowledgments xix

Chapter 1 The Origins and History of Medicine and Medical Practice 1

Chapter 2 Practice Models and Legal Organization 39

Chapter 3 Information Technology and Management 75

Chapter 4 Regulatory Issues, the Law, and Practice Management 107

Chapter 5 Strategic Planning, Project Management, and Marketing in Practice Management 133

Chapter 6 Third-Party Payers, the Revenue Cycle, and the Medical Practice 165

Chapter 7 Financial Management and Managerial Accounting in the Physician Practice 205

Chapter 8 Human Resources Management 233

Chapter 9 Leading, Managing, and Governing Within Organizational Dynamics 279

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Chapter 10 Quality Management in the Physician Practice 315

Chapter 11 Emergency Management and the Medical Practice 345

Chapter 12 The Future and Medical Practice Innovation 375

Appendix 429

Glossary 433

Index 437

About the Author 471

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DETAILED CONTENTS

Preface xv

Acknowledgments xix

Chapter 1 The Origins and History of Medicine and Medical Practice 1

Learning Objectives 1
Introduction 1
Lifelong Learning 3
The American Healthcare System 4
Practice Management Resources 7
The Dimensions of Medical Practice 8
Types of Practitioners 9
Practice Ownership 12
Licensing Physicians 13
Medical Training 14
What Is Changing? 14
What Are Some of Today's Challenges? 16
Leadership Challenges 26
The Cloud of Anxiety 30
Discussion Questions 31
References 31

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Chapter 2 Practice Models and Legal Organization 39

Learning Objectives 39
Structures and Organization 39
Affiliation Versus Employment Models and the Corporate Practice of Medicine 46
Culture and Organization 50
Academic Medical Centers and Physician Practice Management 51
Accountable Care Organizations 52
Clinical Integration 53
Patient-Centered Medical Homes 55
Integrated Delivery Systems 58
Mergers and Acquisitions 60
The "Great Double Cross" 66
The Changing Landscape of Physician Practice in the COVID-19 ERA 67
Discussion Questions 70
References 70

Chapter 3 Information Technology and Management 75

Learning Objectives 75
Introduction 75
Performance 76
Interface 77
Education and Training 77
Meaningful Use 78
Practice Management Systems 81
Other Important Systems in the Medical Practice 83
The Patient Flow Process and IT's Role 86
Interoperability 87
Value-Based Care and IT 89
Practical Aspects of Medical Practice Information Systems 90
Discussion Questions 102
References 102

Chapter 4 Regulatory Issues, the Law, and Practice Management 107

Learning Objectives 107
Introduction 107
Jurisdiction 109
Laws Regulating the Organization and Governance of Corporations 109
Corporate Organizational Documents 110
Contract Law 113
Federal and State Taxation 114

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Antitrust Laws 114
Labor Laws 115
Federal Laws Governing Medicare Fraud and Abuse 116
Medical Records Regulations 121
Malpractice 123
The Medical Practices Act 123
Certificate-of-Need Laws 124
Risk Assessment 125
Discussion Questions 128
References 128

Chapter 5 Strategic Planning, Project Management, and Marketing in Practice Management 133

Learning Objectives 133
Introduction 133
Strategic Planning 134
Choosing a Strategic Alternative 136
Developing a Communication Plan 136
Strengths, Weaknesses, Opportunities, and Threats Analysis 138
Force Field Analysis 141
Economic Analysis of a New or Improved Service 142
Analysis of a Capital Investment 143
Project Management 151
What Is Marketing? 154
Discussion Questions 161
References 161

Chapter 6 Third-Party Payers, the Revenue Cycle, and the Medical Practice 165

Learning Objectives 165
Introduction 165
Role and Scope of Financing Healthcare 166
Management Decisions 167
Insurance Concepts 168
Types of Health Coverage 170
An Illness System, Not a Health System 175
Managed Care 176
Government Health Insurance Programs 183
The Revenue Cycle 186
The Reimbursement System for Physicians Is Continuing to Undergo Significant Changes 192
Medicare Physician Fee Schedule 192
Resource-Based Relative Value Scale 193

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Medicare Access and CHIP Reauthorization Act 194
Discussion Questions 199
References 199

Chapter 7 Financial Management and Managerial Accounting in the Physician Practice 205

Learning Objectives 205
Introduction 205
Cost Behavior 206
Accounting Methods 208
Budgeting 209
Financial Statements 214
Monitoring Financial Performance 217
Physician and Other Provider Compensation 223
Administering Value-Based Contracts 230
The Future of Practice Financial Management 231
Discussion Questions 231
References 231

Chapter 8 Human Resources Management 233

Learning Objectives 233
Introduction 234
The People in the Practice 234
The Employment, Recruiting, and Hiring Process 236
Talent Management 243
Employment Policies and Procedures 247
Organization Development 249
Employee Development 249
Change Management 250
Conflict Management 258
Diversity and Inclusion 260
Reward and Recognition 265
Workforce Shortages 265
Burnout 267
The Future Workforce 271
Discussion Questions 272
References 272

Chapter 9 Leading, Managing, and Governing Within Organizational Dynamics 279

Learning Objectives 279
Introduction 279

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The Basics and Theories of Leadership 280
Leadership Versus Management 283
The Dyad Leadership Model in Practice Management 284
Leadership: Mission, Vision, and Values 288
Professionalism 290
Leadership Styles 292
Organizational Conscientiousness 294
Emotional Intelligence 294
Generational Issues in the Medical Practice 295
Diversity and Inclusion Issues for Leadership 297
Giving and Receiving Feedback 299
Governance and Organizational Dynamics 302
Conducting Meetings 305
Assessing Leadership Success 307
Managing and Leading in an Increasingly Complex Internal and External Environment 307
Discussion Questions 309
References 309
Additional Reading 313

Chapter 10 Quality Management in the Physician Practice 315

Learning Objectives 315
Introduction 315
Safety Is Improving 316
Quality and Safety Improvement 317
The Triple Aim 319
The Quadruple Aim 321
Quality Improvement Processes 321
Quality Improvement Tools 333
Data Analytics 338
Discussion Questions 339
References 339

Chapter 11 Emergency Management and the Medical Practice 345

Learning Objectives 345
Introduction 345
The New Nature of Emergencies 346
The Key Dilemma 349
Emergency Management 349
Developing an Emergency Preparedness Plan for the Practice 351
Who Is an Emergency Manager? 355
Community Emergency Response Teams 358

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Special Situations ... 358
Collaborative Emergency Management ... 368
Discussion Questions ... 368
References ... 369

Chapter 12 The Future and Medical Practice Innovation ... 375

Learning Objectives ... 375
Introduction ... 375
Forces of Change ... 379
The Lesson of the Affordable Care Act ... 383
The Promise of Community-Based Primary Care ... 383
The "New Era" in Medical Education ... 384
Future Workforce Challenges ... 384
Global Threats and International Cooperation ... 386
Advances in Imaging and Laboratory Testing ... 387
Evidence-Based Healthcare ... 387
Data Analytics and Artificial Intelligence ... 388
Population Health ... 391
Chronic Disease ... 394
Underserved Areas and Community Health Centers ... 398
Genomics and Precision Medicine ... 400
The Internet and Self-Efficacy ... 401
Nontraditional Providers ... 405
Site-Based Corporate Medical Services ... 406
Concierge Practices ... 407
Wearables and Internet-Based Medical Services ... 407
Social Media ... 409
Alternative and Complementary Medicine ... 411
Behavioral Economics and Changing Patient Behavior ... 413
Discussion Questions ... 416
References ... 416

Appendix ... 429

Glossary ... 433

Index ... 437

About the Author ... 471

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PREFACE

We are here to make another world.

—W. Edwards Deming

The practice of medicine is one of the oldest and most honorable of professions, but it is facing a revolution that is unprecedented. Navigating this revolution will require skilled and well-prepared practice managers and leaders.

The world is much different than it was when the first edition of *Fundamentals of Medical Practice Management* was published in 2018. The COVID-19 pandemic and climate change are two of the most notable forces that have had a significant and direct bearing on the medical practice during this time. Both the pandemic and climate change have accelerated the pace of the revolution in healthcare, presenting extraordinary challenges to healthcare organizations and practice leaders. As Charles Darwin said, "It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change" (Kim et al. 2020; Stephenson 2022). Some organizations are surviving and even thriving as the pandemic abates, but others are faced with the urgent need to make major changes and lay off employees to stabilize their finances (Faulx 2023; Gamble 2023). We should hope that the trials of the last several years will make us more aware of and prepared for the next inevitable crisis (Cutler 2021).

In many ways, the quote that opens this section of the book exemplifies the intention of this text and the current state of medical practice management as a field. Deming, widely considered the father of the quality revolution, often said that understanding the

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"why," not simply the "what," of our work is essential to provide superior services and performance. I had the good fortune to learn from Deming and experience firsthand the foundations of quality management. Through this experience, I gleaned many important insights about the operation of successful practices. Many years have passed since I realized the profound impact of this experience, but Deming's teachings are more relevant today than ever before. Much of his approach has been repackaged for today's industries, but the basis of its truths lies in the tenets Deming demonstrated decades ago.

The true meaning and philosophy of quality and performance excellence get lost in the details of targets, processes, and tools. The details do not replace wisdom or developing an appreciation for what it means to demonstrate excellence and be guided by quality principles. Simply documenting the "right" targets and adopting the right tools is not enough to succeed; process without purpose is pointless. We need to focus less on the completion of discrete functions and more on understanding that function's purpose so that we can know how to improve it. To that end, education for practice managers must incorporate development of deep knowledge of healthcare delivery by the medical practice and its processes. Additionally, today's practice manager must recognize and embrace the need for change in the healthcare industry to provide the care patients need and deserve.

Practice management encompasses a broad range of activities. In large practice organizations, the manager may have responsibility for a narrow range of functions, but many practices are small organizations, in which the management must assume multiple roles. These may include all aspects of operating the enterprise, much like the responsibilities of a small-business owner. So, although practice managers indeed have a lot of "how-to" to learn, this book is more than a how-to text; it is intended to encourage the reader to think about why medical practice managers do what they do and how the roles of other stakeholders interplay with the manager's. How-to textbooks in healthcare become obsolete almost before they are published because the facts are constantly changing. To maintain their relevance, healthcare management texts must also teach when to carry out the tasks and process and why they should be done. Above all else, healthcare education books should emphasize, "First, do the right thing, and then, do it correctly," not unlike the often-repeated words of the Hippocratic Oath, "First, do no harm."

This text focuses on fundamental concepts and knowledge essential to manage, lead, and develop the wisdom to make the changes needed in medical practices to ensure a prosperous and sustainable future. Using strategies that are good for all stakeholders is necessary because healthcare must pose a value proposition for patients and society. This book is ambitious in its coverage of the field and does not assume the reader has prior knowledge of practice management; however, it may not cover particular topics to the depth that some may wish. A book covering every topic applicable to the healthcare administrator would span many volumes.

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Although this text discusses many practical topics, from contract law to information technology, its primary focus is on people. We live in a time of diminished emotional, societal, and economic returns from quick-fix accommodations and processes. John Nash recognized this trend in his Nobel Prize–winning research on game theory: Cooperation is often better than competition for all to achieve their objectives (Kuhn et al. 1994). This text aims to demonstrate that working together and putting people first is the best way to be successful in healthcare.

As noted in the first chapter, most people agree that the US medical delivery system needs to change, requiring strong, intelligent leaders and managers with a will to see a better future come to fruition. As Ian Malcolm said to John Hammond in the movie *Jurassic Park*, "Your scientists were so preoccupied with whether they could do it that they didn't stop to think if they should." This dialogue sums up much of what has happened in the practice of medicine over the past several decades. The industry has responded to short-term incentives and fragmented laws, rules, programs, and policies without a clear, unified strategy for the entire healthcare system. Most segments of the US healthcare field have worked to serve their own interests, so past policies, regulations, advocacy efforts, and so on have made sense from that narrow point of view (Heineman and Froemke 2012). That time has passed.

As a result of the many challenges facing the healthcare system, the capacity to adapt change is essential to the future of the medical practice. Furthermore, practices need to lead that change, not follow the unsatisfactory solutions offered by those who know less about the care of patients than practice managers, staff, and clinicians. The modern practice manager and leader must have courage and the ability to see beyond the immediate and the expedient to do what is necessary for the long-term viability of healthcare practices. Courage is required to face the numerous challenges confronted at every turn without taking the easy route.

To quote one final thought from Deming (2015): "A bad system will beat a good person every time." The objective of this text is not only to provide knowledge, but also to change the reader's mindset about the action, attitude, and fortitude necessary for a new era of practice management to emerge.

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This book's Instructor Resources include an instructor's manual, test bank questions, and a transition guide to the new edition.

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CHAPTER 1

THE ORIGINS AND HISTORY OF MEDICINE AND MEDICAL PRACTICE

Not everything that counts can be counted, and not everything that can be counted counts.

—William Bruce Cameron

Learning Objectives

- Appreciate the history of medical practice.
- Explore the six domains of medical practice management.
- Understand the forces of change affecting medical practice.
- Develop a perspective on the changes affecting medical practice.
- Understand the importance of the medical practitioner.

Introduction

Healthcare tends to be an accurate barometer of US society. Consider that virtually every aspect of social dysfunction, or of the human enterprise in general, becomes intertwined with the healthcare system. Most of the US population is born in a hospital, and many die there. The healthcare system is a place of joy and sorrow, hope and despair. The importance

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of the healthcare system is hard to overstate, and the role that medical providers play is a key factor in how the future system of care will take shape. This near-universal involvement with the healthcare system of virtually every person makes healthcare an accurate barometer of our society.

Often, the physician practice is the first line of care delivery, and for many patients, the physician provides the longitudinal care that sustains health and well-being (DiMatteo 1998). Therefore, the medical practice is a fundamental component of the healthcare delivery system, making the management and leadership of the medical practice key to reforming that system. Because the physician practice is often the entry point for most patients into the healthcare system, in many ways, it embodies the challenges of practice management. The choices made to overcome these challenges may be endless and require achieving a careful balance of the art and the science of management.

This balance requires what W. Edwards Deming, the father of modern quality management, referred to as "profound knowledge," as well as the expertise to know when and how to use it (Deming Institute 2023). Deming's concept of profound knowledge is based in systems theory. It holds that every organization is composed of four main interrelated components, people, and processes, which depend on management to carefully orchestrate this interaction:

- Appreciation of a system
- Theory of knowledge
- Psychology of change
- Knowledge about variation

How do we keep up with the rapidly changing environment of healthcare in this new era? What metrics do we use, and what do we ignore? This journey demands that we answer these and other questions to bring about change in our healthcare system. It requires the full engagement of the provider community if meaningful and lasting change is to occur. Once change is effected, a new paradigm of care delivery will require a new mindset that moves the industry from healthcare as the goal system to well-being (Gawande 2014). Although health is critical to overall well-being, it is not the only issue. This text provides technical information on the management of the medical practice, but it also offers insight into necessary new skill sets providers and other healthcare leaders must have and the roles they must play to create a paradigm of sustainable care for the future to optimize well-being as well as health.

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Lifelong Learning

Practice management is changing rapidly in response to the ever-shifting landscape of healthcare and medical practice. Practice managers need to be committed to lifelong learning and be active in our professional organizations to ensure they are up to date on current knowledge.

The Medical Group Management Association (MGMA), with its academic arm, the American College of Medical Practice Executives (ACMPE), is the premier education and networking group for practice managers. The organization dates back to 1926 and today comprises more than 60,000 administrators, executives, and leaders in 15,000 group medical practices in representing 350,000 physicians. The MGMA (2023b) has been instrumental in advancing the knowledge of practice management, and the ACMPE offers a rigorous **certification** program in practice management that is widely recognized in the industry.

Certification
A voluntary system of standards that practitioners meet to demonstrate accomplishment or ability in their profession. Certification standards are generally set by nongovernmental agencies or associations.

The MGMA has identified six domains that are essential for the practice manager to understand (see exhibit 1.1). This text examines each of these domains of the practice management body of knowledge to provide a sound, fundamental base for practice managers and practice leaders. It includes a comprehensive overview that does not assume a great deal of prior education in the field of practice management. Furthermore, it seeks to provide not only specific information about the management of the medical practice but also context in the larger US healthcare system. Too often, different segments of the healthcare system see themselves as operating in isolation. This point of view must change if medical practices are to transform and if managers are to lead successful practices in the future, whether a small, free-standing practice or a large practice integrated with a major healthcare system.

Another prominent organization for the education and advancement of practice management is the American College of Healthcare Executives (ACHE). ACHE is a professional organization of more than 48,000 US and international healthcare executives who lead healthcare systems, hospitals, and other healthcare organizations. Currently with 76 chapters, ACHE offers board certification in healthcare management as a Fellow of ACHE, a highly regarded designation for healthcare management professionals (ACHE 2023).

Exhibit 1.1
The Six Domains of the Body of Knowledge for Practice Managers

Operations management	Financial management
Human resource management	Risk and compliance management
Transformative healthcare delivery	Organizational governance

Source: MGMA (2023a).

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The American Healthcare System

The practice of medicine drives the US healthcare system and its components, and medicine is heavily influenced by the system as well. Medical practice and the healthcare system are both built on the foundation of the physician–patient relationship. Although the percentage of total healthcare costs attributed to physicians and other clinical practitioners was 20 percent in 2015, the so-called clinician's pen, representing the prescribing and referral power of medical practice clinicians, indirectly accounts for most healthcare system costs. Administrators do not prescribe medication, admit patients, or order tests and services. This fact is just one illustration of a fragmented system whose segments can act independently. This fragmentation must be addressed if medical practices are to provide high-quality healthcare to patients at the lowest cost possible.

To begin our study of practice management, this book first offers some perspective on medical practices in terms of the overall US healthcare system. A complete history of the practice of medicine is beyond the scope of this text, but the lengthy and enduring nature of medical practice is important to recognize. The first known mention of the practice of medicine is from the Old Kingdom of ancient Egypt, dating back to about 2600 BCE. Later, the first known code of conduct, the Code of Hammurabi, dealt with many aspects of human **behavior** and, most important for our study, established laws governing the practice of medicine. The first medical text was written about 250 years later (Nunn 2002).

Behavior
How an individual acts, especially toward others.

Exhibit 1.2 provides a sample of some significant points in the development of the physician medical practice from ancient times to the present. The reader may wonder why such a diverse series of events is listed, ranging from the recognition of the first physician to the occurrence of natural disasters and terrorist acts. Medicine, whether directly or indirectly, influences virtually every aspect of human life. Events such as Hurricane Katrina, the 9/11 terrorist attacks, the emergence of the human immunodeficiency virus (HIV), and the Ebola virus outbreak have had major impacts on the healthcare system and physician practice. Before 9/11, medical practices thought little about emergency preparedness and management; such activities were seen as within the purview of government agencies. Until HIV was identified in 1983 as the cause of acquired immunodeficiency syndrome (AIDS), and reinforced by the Ebola crisis of 2014, medical practices spent few resources and little time thinking about deadly infectious disease and the potential for it to arrive from distant locales. A traveler can reach virtually any destination in the world within a 24-hour period, which is well within the incubation period of most infectious agents. Modern air travel has made the world of disease a single place, so practices must be mindful of patients' origins and travels.

In contemporary times, the COVID-19 pandemic may be the most serious health crisis since the 1918 flu pandemic. On December 12, 2019, a small group of patients in China's Hubei Province, in the city of Wuhan, begin to experience symptoms of an atypical pneumonia-like illness that did not respond well to standard treatments (CDC 2022b). It was not long until this illness found its way to the United States and around the world. By

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March 2020, activities in the United States were seriously curtailed because of what was labeled a pandemic (Jacobsen and Jacobsen 2020). As of February 16, 2023, more than one million people in the United States had died from COVID-19, and more deaths are projected (CDC 2023). On January 30, 2023, the administration of President Joe Biden announced that it would end the emergency declaration for the COVID-19 pandemic on May 11 of that year (Cubanski et al. 2023).

Exhibit 1.2
Selected Major Events in the History of Medicine and Medical Practice

2600 BCE	Imhotep, a famous doctor, is the first physician mentioned in recorded history. After his death, he is worshipped as a god. (Hurry 1978)
1792–1750 BCE	The Code of Hammurabi is written, establishing laws governing the practice of medicine. (Johns 2000)
1500 BCE	The Ebers Papyrus is the first known medical book. (Hinrichs'sche, Wreszinski, and Umschrift 1913)
500 BCE	Alcamaeon of Croton in present-day Italy says that a body is healthy as long as it has the right balance of hot and cold, wet and dry. If the balance is upset, the body falls ill. (Jones 1979)
460–370 BCE	Hippocrates lives. He stresses careful observation and the importance of nutrition. (Jones 1868)
384–322 BCE	Aristotle lives. He says the body is made up of four humors or liquids: phlegm, blood, yellow bile, and black bile. (GreekMedicine.net 2016)
130–200 CE	Roman doctor Galen lives. Over the following centuries, his writings become very influential. (Sarton 1951)
1100–1300 CE	Schools of medicine are founded in Europe. In the 13th century, barber-surgeons begin to work in towns. The church runs the only hospitals. (Cobban 1999; Rashdall 1895)
1543	Andreas Vesalius publishes *The Fabric of the Human Body*. (Garrison and Hast 2014)
1628	William Harvey publishes his discovery of how the blood circulates in the body. (Harvey 1993)
1796	Edward Jenner invents a vaccine against smallpox. (Winkelstein 1992)
1847	Chloroform is used as an anesthetic by James Simpson. (Ball 1996)
1816	Rene Laennec invents the stethoscope. (Roguin 2006)
1865	Joseph Lister develops antiseptic surgery. (Bankston 2004)

(continued on next page)

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Exhibit 1.2
Selected Major Events in the History of Medicine and Medical Practice *(continued)*

1870	The Medical Practice Act is passed. Licensure of physicians becomes a state function. (Stevens 1971)
1876	The American Association of Medical Colleges is founded. (Coggeshall 1965)
1880	Louis Pasteur invents a vaccine for chicken cholera. (Debré 2000)
1895	Wilhelm Conrad Röntgen discovers X-rays. (Glasser 1933)
1910	The Abraham Flexner report on medical education is published. (Flexner 1910)
1928	Penicillin is discovered by Scottish scientist Alexander Fleming, and it is established that the drug can be used in medicine. (Ligon 2004)
1929	The first employer-sponsored health insurance is created at Baylor Teachers College as Blue Cross. (Buchmueller and Monheit 2009)
1943	Willem Johan Kolff invents the first artificial kidney (dialysis) machine. (Heiney 2003)
1931	The electron microscope is invented. (Palucka 2002)
1951	Epidemiology studies identify cigarette smoking as a cause of lung cancer. Sir Richard Doll is the first to make this link. (Keating 2009)
1953	Jonas Salk announces he has developed a vaccine for polio. (Koprowski 1960)
1953	The structure of DNA is determined. (Dahm 2008)
1965	Medicare and Medicaid are passed into law. (Social Security Administration 2016)
1967	The first heart transplant is performed by Christiaan Barnard. (Barnard 2011)
1971	MRI scanning is invented. (Lauterbur 1973)
1973	The HMO Act is passed. (Dorsey 1975)
1989	President George W. Bush signs the Omnibus Budget Reconciliation Act of 1989, enacting a physician payment schedule based on a resource-based relative value scale. (AMA 2023)
1996	The Health Insurance Portability and Accountability Act is passed as an amendment to the HMO Act. (Atchinson and Fox 1997)
2001	The 9/11 terrorist attacks occur. (Bernstein 2003)
2003	The human genome is sequenced. (National Human Genome Research Institute 2022)

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Exhibit 1.2 Selected Major Events in the History of Medicine and Medical Practice *(continued)*

2005	Hurricane Katrina devastates the Gulf Coast, including New Orleans. (Knabb, Rhome, and Brown 2005)
2008	The Triple Aim for healthcare delivery is proposed by the Institute for Healthcare Improvement. (Berwick, Nolan, and Whittington 2008)
2008	Medicare Part D is enacted. (Hargrave et al. 2007)
2010	The Affordable Care Act is passed. (HHS 2022)
2012	High-deductible health plans become more common. (Morrisey 2013)
2014	The Ebola crisis emerges in West Africa. (CDC 2019)
2016	Zika virus becomes a serious health threat. (CDC 2022d; Wang and Barry 2016)
2019	A novel coronavirus is identified in Hubei Province, China. (CDC 2022b)
2020	The World Health Organization declares COVID-19 a pandemic. (CDC 2022b)
2021	The first COVID-19 vaccine becomes available to the public. (CDC 2022b)

The evolution of medical practices has coincided with and been driven in part by the development of medical technology and the scientific revolution. Medicine was limited in scope and primitive until the middle of the nineteenth century. Theories of disease were arcane, and diagnostic tools were largely absent (Rosenberg and Vogel 1979). Prior to 1850, medical education constituted an apprenticeship that was inconsistent and poorly preceptored, with no standard curriculum (Rothstein 1972). Procedures focused on expelling disease with bleedings and emetics. Surgery was limited because of the lack of anesthesia, and as a result, being fast was better than being good. Patients often directed the physician as to the care they should receive. One might say that early medical practice was the first iteration of patient-centered care (Burke 1985).

Practice Management Resources

Now, however, the amount of information available about medicine and medical practice management is virtually endless, representing many points of view; ideas; political worldviews; notions about funding and access; and numerous disciplines in the broader management field, such as **accounting**, finance, human resources management, organization development, and logistics. With the vast expanse of knowledge available, students

Accounting
A system for keeping score in business, using dollars.

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of healthcare and practice management are encouraged to develop lifelong learning skills. The field is changing so rapidly that the need for continuous updating of knowledge and skills is essential.

For example, practice managers need to build a virtual library of accurate and reliable sources. The following list comprises the foundation of that library, which should be referred to frequently (see the appendix to this text for each resource's website):

- Centers for Medicare & Medicaid Services (CMS)
- Advisory Board
- Dartmouth Atlas
- National Committee for Quality Assurance
- Institute for Healthcare Improvement
- Institute of Medicine
- Institute for Health Policy and Innovation
- Kaiser Family Foundation
- Robert Wood Johnson Foundation
- Annenberg Foundation
- Commonwealth Fund
- Centers for Disease Control and Prevention
- Agency for Healthcare Research and Quality

The Dimensions of Medical Practice

Governance
A system of policies and procedures that is designed to facilitate oversight of the management of the enterprise and serves as the foundation of how the practice will behave, compete, and document its actions.

Medical practices can take many forms, ranging from small sole proprietorships to large multispecialty medical practices. Recent years have seen more medical practices embedded in large healthcare organizations, which also may be solo practices or large multispecialty entities (see exhibit 1.3).

A group practice is defined as a medical practice consisting of two or more practitioners working in a common management and administrative structure. Single-specialty groups are those that focus on one aspect of medicine, such as general surgery, family practice, orthopedics, cardiology, or internal medicine. Multispecialty medical groups contain more than one medical specialty in the organization. Multispecialty practices are highly integrated, with a common **governance** leadership and common management structure,

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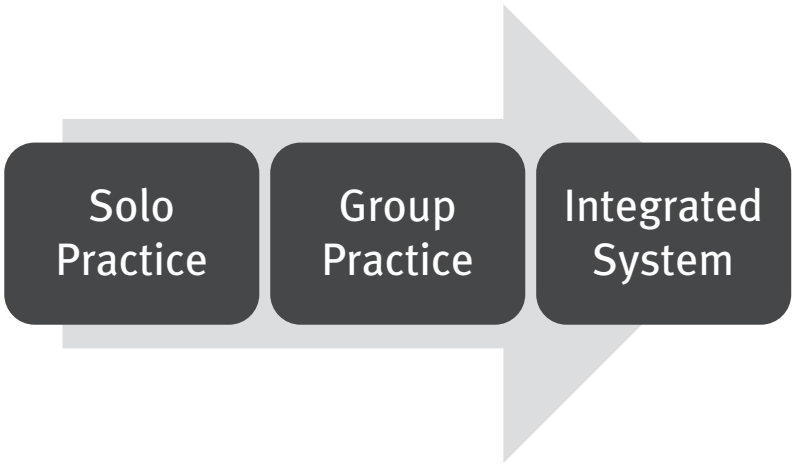


Exhibit 1.3
Practice Structures—Simple to Complex

and they have a highly developed corporate system for managing finances and dealing with regulatory agencies. Their operation and function are much more complex than those of solo or small practices.

Integrated delivery systems (IDSs) are networks of healthcare organizations under a single holding company or parent organization that contain multiple components of healthcare delivery. An IDS often includes hospitals, physicians and other clinicians, and payment organizations, often referred to as third-party payer organizations. The **goal** is to provide as complete a continuum of care as possible.

Goal
A specific target that an individual or a company tries to achieve.

Types of Practitioners

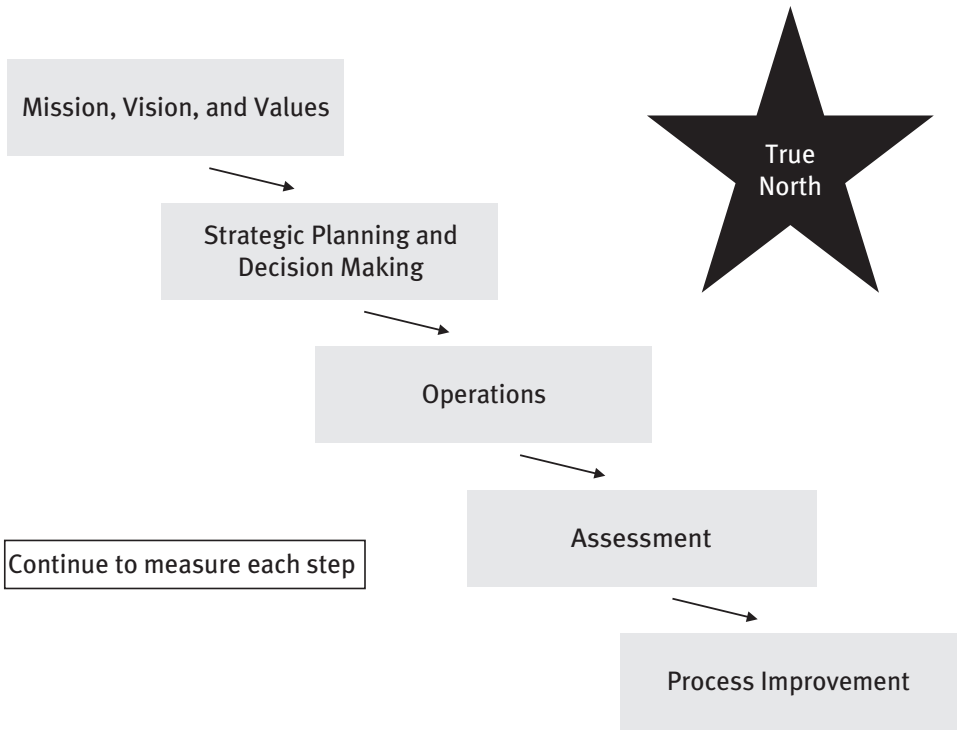
Physicians have, of course, played a pivotal role in the US healthcare system since its inception. Physicians—and now other nonphysician providers such as nurse practitioners (discussed later)—care for patients by

- assessing the patient's health status,
- diagnosing the patient's condition, and
- prescribing and performing treatment.

It has been said that the most expensive instrument in the healthcare industry is the provider's pen. An amusing statement, but it carries a lot of truth because all diagnostic and surgical procedures as well as office-based and hospital-based assessments—in fact, all care in general—is either performed or ordered by a provider.

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Exhibit 1.4
The Practice Management Model



Furthermore, the medical practice is unlike any other organization in the medical field because the nature and identity of the practice is closely linked to the individual providers in the practice. The providers are the primary producers and the primary governance body, and they are held accountable for the performance of the practice in a personal way. Their income is directly tied to the practice's performance, more closely than for other medical field workers. Exhibit 1.4 shows the fundamental components of a medical practice.

Often, the challenge in practice management is to serve the interests of the providers while maintaining a focus on the patient, with patient focus being the True North of the practice.

"True North" is a concept taken from Lean management that embodies the ideal state of a practice, its providers' vision of perfection, and the type and quality of practice it should strive to achieve every day. True North should transcend the individuals and their personal goals or actions. Achieving personal objectives is not mutually exclusive but coincidental with True North.

Exhibit 1.5 shows the number of physicians practicing in the United States. Exhibit 1.6 shows the distribution of physician practices by size. Practices have increased over time, a trend that is expected to continue.

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Exhibit 1.5
Total Active Physicians in the United States, January 2023

Primary Care Physicians	Specialist Physicians	Total
502,217	576,464	1,078,681

Source: Kaiser Family Foundation (2023).

Exhibit 1.6
Distribution of Physician Practices by Size, 2020

Number of Physicians in Practice	Share of Practices
< 5	33.6%
5 to 10	20.%
11 to 24	11.5%
25 to 49	7.8%
50+	17.2%
Direct hospital employee or contractor	9.7%
Total	100%
N	3,326

Source: Kane (2021).

A primary care physician (PCP) is often the first contact for a patient with an undiagnosed health concern. In addition, PCPs frequently provide continuing care for many medical conditions that are not limited by cause, organ system, or diagnosis. This purview of practice differs from that of a medical specialist, who has completed advanced education and clinical training in a specific area of medicine and typically focuses on the diagnosis and treatment of one organ system of the body and its diseases.

Nurse practitioners and physician assistants make up a growing segment of medical service providers, as seen in exhibit 1.7. A physician assistant (PA) is a nationally certified and state-licensed medical professional. PAs practice medicine with physicians and other providers and are allowed to prescribe medication in all 50 states, the District of Columbia, the majority of US territories, and the uniformed services. A nurse practitioner (NP) is a registered nurse who is qualified, through advanced training, to assume some of the duties and responsibilities of a physician.

PAs and NPs are sometimes referred to as advanced practice professionals. State laws vary as to the specific duties that PAs and NPs are allowed to perform, so the practice manager must be fully informed of these regulations.

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Exhibit 1.7
Physician Assistants and Nurse Practitioners

Provider Type	Total	Percent Office-Based Care	Practicing Office-Based Care
Physician assistants	140,910	54.2%	76,270
Nurse practitioners	258,230	47.6%	122,830

Source: US Bureau of Labor Statistics (2002a, 2022b).

Advanced practice professionals are becoming increasingly important to medical practices because they can replace physicians in care delivery for many services, reserving the physician's time for more complex care requiring their expertise. For example, PAs and NPs often work as part of a care team with physicians. They may examine the patient first; collect facts and findings; and then, in collaboration with the physician, make a diagnosis and develop a treatment plan. The physician supervises the process and conducts their own examination of the patients to ensure that the proper care is delivered. The physician often checks critical elements of the exam and establishes a relationship with the patient. The PA or NP typically follows up with the patient once the treatment plan is established.

Practice Ownership

In addition to the area of medicine practiced, physician practices can be classified by type of ownership. Exhibit 1.8 shows the distribution of medical practices by ownership. Note the trend—which is expected to continue—toward practice ownership by hospitals and healthcare systems. According to a 2021 report from the Physicians Advocacy Institute,

Exhibit 1.8
Distribution of Physicians by Practice Ownership Structure, 2012 and 2020

	2012	2020
At least some hospital ownership	23.4%	30.5%
Wholly owned by hospital	14.7%	20.1%
Jointly owned, physicians and hospital	6.0%	6.4%
Unknown whether wholly or jointly owned	2.6%	3.9%
Direct hospital employee	5.6%	9.3%
Not-for-profit	6.5%	4.7%
Other	4.4%	2.0%
Total	100%	100%
N	3,466	3,500

Source: Kane (2021).

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nearly 70 percent of physicians in the United States are employed by hospital systems or by corporate entities such as private equity firms and health insurers. The COVID-19 pandemic has only accelerated this trend.

Licensing Physicians

All 50 states require physicians and medical providers to hold a license. The licensing of medical providers is performed under the auspices of a medical examining board. These boards have the right to grant a license to practice medicine and the responsibility to investigate and discipline providers in cases of inappropriate conduct.

These licenses provide the practitioner a general right and privilege to practice medicine, but they usually do not grant specific privileges to practice a particular medical specialty. This activity is beyond the scope of **licensure** and typically is conducted by the hospital or hospitals at which the physician or advanced practice provider delivers care.

Licensure
A mandatory system of state-imposed standards that practitioners must meet to practice a given profession.

The licensing process includes a thorough, painstaking review and verification of the training and experience the physician or provider has received. Criminal background checks and reviews of the National Practitioner Data Bank (NPDB) are conducted in this process. The NPDB contains documentation of any disciplinary acts leveled against the physician, malpractice settlements, and other practice restrictions the physician may have received.

Reciprocity, or the reciprocal granting of a medical license by states based on licensing of the provider in another state, has become a thing of the past because of concerns that practitioners with a poor record or history of committing fraud could simply cross state lines and begin anew.

Licensure should not be confused with certification. Many medical specialties offer special recognition through board certification, which indicates the practitioner has acquired additional, specific training and testing in an area of medicine (see exhibit 1.9). In contrast

Exhibit 1.9
Partial List of Medical Specialties

Allergy and immunology	Anesthesiology	Cardiology
Dermatology	Emergency medicine	Genetics
Gerontology	Gynecology	Hematology
Internal medicine	Neurology	Obstetrics
Oncology	Otolaryngology	Palliative care and hospice
Pathology	Pediatrics and related subspecialties	Preventive medicine
Primary care practice	Psychiatry	Radiation oncology
Radiology	Surgery and related subspecialties	Urology

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with licensure, the absence of board certification by itself does not prohibit a physician from practicing in a medical specialty in most states.

Medical Training

According to the Association of American Medical Colleges (AAMC 2022), 157 accredited US and 13 accredited Canadian medical schools; approximately 400 major teaching hospitals and health systems, including US Department of Veterans Affairs medical centers; and more than 70 academic societies offer medical education. In addition, the American Association of Colleges of Osteopathic Medicine reports that 40 colleges of osteopathic medicine are in operation (AACOM 2023). Although both are fully licensed physicians in the United States and very similar in many respects, doctors of osteopathy (DOs), or osteopaths, differ from medical doctors (MDs) in the educational path they take for their medical education. DOs attend osteopathic medical schools, and MDs attend allopathic medical schools. Each type of school teaches the diagnosis and treatment of disease, but the disciplines vary somewhat in philosophy, with the osteopathic approach focusing more on a holistic view of human disease and treatment. DOs often complete their postgraduate training in allopathic residencies and fellowships, which further reduces the distinction between the two types of physician.

Among them, these organizations employ more than 193,000 faculty members, educate 96,000 medical students, and host 153,000 resident physicians (AAMC 2022).

What Is Changing?

The Conundrum

Three fundamental aspects of practice management and care delivery are important to focus on in any discussion of medical practice: high quality, high access, and low cost.

Economists would argue that a practice can succeed as a business with any two of those three components—for instance, high quality and a high level of access, where cost is not low. Indeed, economic theory holds that a business cannot achieve all three simultaneously. However, a medical practice must achieve all of them to be an effective and high-quality practice.

Consider that in some countries, to limit healthcare costs—a concern around the world—healthcare systems limit access to care. For example, delays are seen with hip replacements, knee replacements, and even some essential surgeries. In the United States, these procedures can be undertaken almost immediately. But healthcare costs for care and treatment are much higher in the United States than in other countries. Thus, one job of

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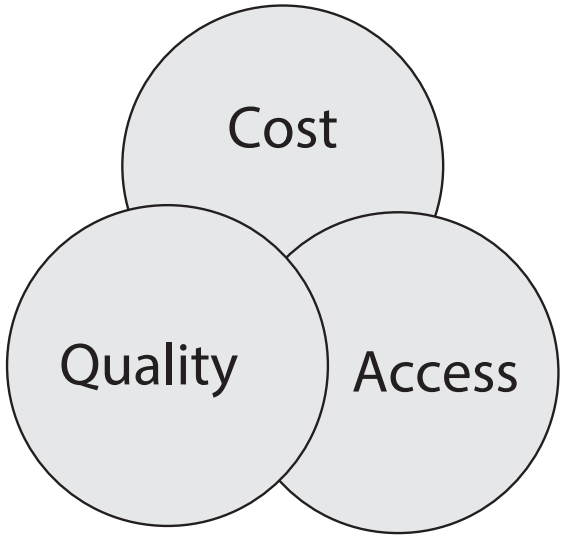


Exhibit 1.10
The Practice Conundrum

the practice manager and leader is to maximize or optimize the relationship between cost, access, and quality (see exhibit 1.10).

Social Change

As US society has changed, so has the practice of medicine. In social terms, the country has moved from a time when information about health and our healthcare was the sole purview of medical professionals to a time when individuals have access to an enormous amount of information. The internet has had a profound impact on healthcare. Patients are now able to read about virtually any condition, diagnosis, or treatment, and in many cases, they make judgments about which option is in their best interest.

Patients have also demonstrated new, or renewed, interest in alternative forms of healthcare. A variety of terms are associated with alternative medicine, including *complementary medicine* and *integrative medicine*. Complementary and alternative medicine (CAM) modalities include acupuncture, energy therapies, magnetic field therapies, therapeutic touch, Reiki, Ayurvedic medicine, herbal medicine, and Traditional Chinese Medicine, to name a few.

The effectiveness of these therapies has been demonstrated to varying degrees, but Americans spent more than $30 billion on CAM products and services in 2012, according to a survey conducted by the National Center for Complementary and Integrative Health (2016). These findings indicate that patients are seeking solutions that suit their healthcare needs better than traditional medicine does.

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What Are Some of Today's Challenges?

To develop an appreciation for some of the important changes and challenges facing medical practice, this section touches on a few important issues, including the following:

- The cost of care
- Affordable Care Act (ACA) of 2010
- Health policy issues, such as changes to Medicare and Medicaid
- Changing disease burden and the rise of chronic disease
- Lack of a coordinated system of care
- Rising consumerism and patient-centered care
- Patient safety and quality concerns
- Demographic changes in the population
- Rapidly changing technologies and treatments
- Digital transformation
- Nontraditional providers
- Workforce issues
- Uninsured and underinsured populations
- Financial constraints of practices
- Changing forms of payment and reimbursement, driven in part by the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which replaced the sustainable growth rate formula for physician reimbursement for services and includes
  - the Merit-Based Incentive Payment System and
  - advanced alternative payment models
- The political landscape, including the possible replacement or repeal of the ACA

The Perfect Storm

The "perfect storm" metaphor describes the convergence of multiple events to create dramatic and unique consequences. Similar to the scenario depicted in the novel with this title by

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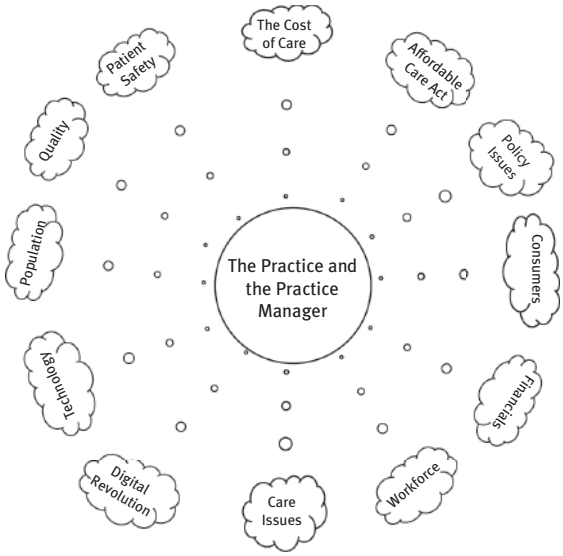


Exhibit 1.11
The Forces of Change Acting on Medical Practices: "The Perfect Storm"

Sebastian Junger (2009), in which he describes a catastrophic storm off the coast of New Bedford, Massachusetts, some US healthcare observers would describe what is happening today in healthcare as a perfect storm. Elements of the perfect storm in the practice of medicine are shown in exhibit 1.11.

The Cost of Care

No factor has affected the sense of urgency to reform the US system of healthcare more than the cost. According to CMS, US healthcare spending increased 2.7 percent to $4.3 trillion in 2021, or $12,914 per person (CMS 2023). This growth was primarily the result of coverage expansions under the ACA, particularly for Medicaid and private health insurance. Of course, the trend of rapidly increasing healthcare costs was seen long before the passage and enactment of the ACA: The share of the US economy devoted to healthcare spending was 18.3 percent, up from 17.3 percent in 2013 and almost 2.5 times that of other Western countries.

The Institute of Medicine, a prestigious federal research and policy organization established in 1970 as part of the National Academy of Sciences, estimates that roughly a third of US healthcare dollars are wasted, amounting to between $700 and $800 billion. This enormous amount of waste is a result of unnecessary services, insufficient care that leads to readmissions and other repeat care, excess administrative costs, and increasing prices (IOM 2001). As one might expect, waste and the resulting excess expenditure in the US healthcare system is one area of tremendous criticism from many observers.

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According to the Organisation for Economic Co-operation and Development (OECD 2021), an international economic group composed of 38 member nations, several important factors differentiate the US healthcare system from those of other countries:

- The United States has fewer physicians per capita than many other OECD countries have, with 2.6 practicing physicians per 1,000 people in 2021, below the OECD average of 3.6 practicing physicians per 1,000 people in 2019.
- The United States had 2.8 hospital beds per 1,000 people in 2021, whereas the OECD average was 4.4 beds.
- In the United States, life expectancy at birth decreased by 2.7 years between 2019 and 2021, from 78.8 to 76.1 years. The decline was largely attributable to the COVID-19 pandemic and the opioid crisis. The average life expectancy in other OECD countries was 82.4 years, down 0.2 years from 2019 as a result of the pandemic. Cultural factors, lifestyle issues, and health habits play a role in this difference as well.

The Affordable Care Act and Other Legislation

Since the passage of Medicare and Medicaid legislation in 1965, no other law has had a greater impact on the healthcare delivery system than the ACA. The ACA will be discussed in detail in later chapters; here, we consider its impact on the healthcare system as well as the challenges and opportunities it brings.

The timeline shown in exhibit 1.2 includes a number of significant changes to healthcare regulations. As healthcare moved from a trade to a profession, its regulation increased. Every state now licenses the practice of medicine and enforces educational and training standards toward that end. Medical practices must comply with all regulations related to corporations and businesses in the state in which they operate and are subject to employment regulations by state and federal government.

Major pieces of legislation have been instrumental in shaping the direction of the practice of medicine in some important ways; they include the following:

- Corporate Practices Act (adopted by each state)
- Medicare and Medicaid legislation
- Balanced Budget Act of 1997, which created the resource-based relative value scale
- ACA
- MACRA

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The Changing Disease Burden and the Rise of Chronic Disease

Disease Burden

Another significant issue facing the modern healthcare practice is how the burden of disease, or the impact of a health problem as measured by financial cost, mortality, morbidity, or other indicators, has changed and whether providers can keep up with these changes. In 1900, gastrointestinal infections, tuberculosis, pneumonia, and influenza were the most significant dangers to Americans' health and longevity. Cancer and heart disease continue to be the major causes of mortality in the United States (OECD 2021). Add to these conditions emerging diseases such as fibromyalgia and infections from the Zika virus and COVID-19—some of which have become known only recently—and the enormity of the disease states that medical practices must be equipped to treat is daunting.

The number of services provided in practice offices is substantial. Most individuals receive most of their care in a medical practice; the following statistics are just a sampling of the scale (Santo and Kang 2023).

- Number of visits at which medications mentioned—745,090
- Percentage of visits involving drug therapy—71.9 percent
- Most frequently prescribed therapeutic classes
  - Analgesics
  - Antihyperlipidemic agents
  - Antidepressants
- Percentage of persons receiving one prescription drug—28.1 percent (2018)
- Percentage of persons receiving three prescription drugs—8.6 percent (2018)
- Percentage of persons receiving five prescription drugs—5.1 percent (2018)

Chronic Disease

More than half of US residents have at least one chronic condition, and more than 85 percent of those older than 65 have a chronic disease. As defined by the Centers for Disease Control and Prevention (CDC 2022a), chronic diseases are those that persist for three months or more. They generally cannot be prevented by vaccines or cured by medication, and they do not disappear spontaneously. Chronic disease is a major driver of cost: Approximately 80 percent of healthcare resources are used by people with chronic conditions. Importantly, most of the treatment of these diseases occurs in a medical office setting.

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According to the CDC (2022a), chronic diseases are responsible for seven out of ten deaths in the United States. Common chronic diseases include the following:

- Diabetes
- Heart disease
- Arthritis
- Kidney disease
- HIV/AIDS
- Lupus
- Multiple sclerosis

Because chronic diseases cannot be cured, prevention is the key to reversing the cost, morbidity, and mortality trends currently seen in the healthcare system. Prevention takes place at three levels:

1. Primary prevention seeks to avoid the onset of a disease using risk-reduction strategies such as altering behaviors or eliminating exposures that can lead to disease, or by enhancing resistance to the effects of exposure to a disease agent. An example of primary prevention is vaccination against flu.
2. Secondary prevention includes procedures that detect and treat so-called preclinical health status changes and control disease progression. An example of secondary prevention is mammography to detect early breast cancer.
3. Tertiary prevention reduces the impact of disease on the patient's functioning, longevity, and quality of life. An example of tertiary prevention is cardiac rehabilitation following a heart attack.

A Large and Growing Problem: The Number of People with Chronic Conditions

Lin and colleagues (2018) project that by 2060, the number of US adults with diagnosed diabetes will nearly triple, and the prevalence will double. Today, six million adults over the age of 18 in the United States—38 percent—are considered prediabetic (CDC 2022c). Unless the incidence curve is changed, US society will continue to see the devastating

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complications of this disease, including neuropathy (nerve damage), blindness, kidney failure, and heart disease.

Type 2 diabetes and many other chronic diseases are classified as "lifestyle diseases" because they are largely preventable and closely related to diet, exercise, and other lifestyle behaviors (Al-Maskari 2010).

In addition to causes of disease such as obesity, observers expect to see a steady increase in the number of people with chronic conditions, in part because the US population is aging, and older people tend to have more chronic diseases than younger people.

Health-conscious behavior, including a focus on eating natural and chemical-free foods, has become a popular way to combat chronic disease. Medicine has come a long way from the time of Hippocrates, but we are wise to remember what he said: "Let medicine be thy food and let food be thy medicine" (Lloyd 1950). That old wisdom must be reinserted into medical practice, at least to some degree.

Lack of a Coordinated System of Care

The US healthcare system currently does not pay adequate attention to the continuum of health services and the continuum of care. As human beings, we have healthcare concerns starting before we are born and continuing all the way until the end of our lives. An effective system of care needs to reflect all the stages of one's life.

In particular, end-of-life care is an issue that lacks a coordinated model in the United States. Many observers believe that the US healthcare delivery system does not deal well with end-of-life care. For example, a significant amount of money is spent at the end of life for care that, in many cases, is at best futile and at worst harmful to the patient and their family.

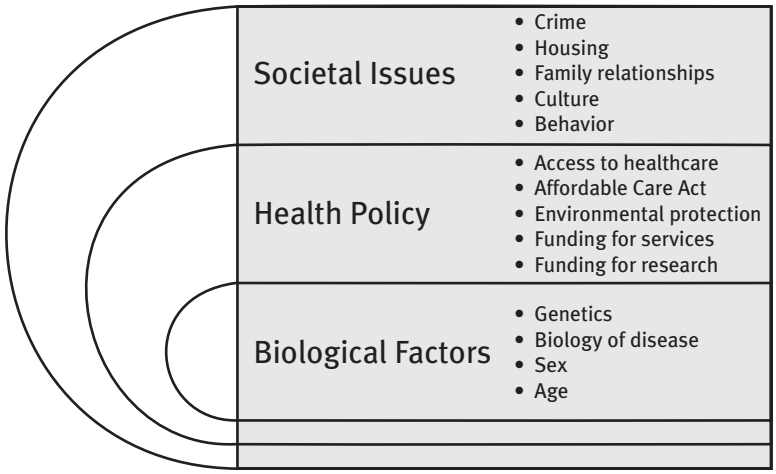
A coordinated system of care also should be concerned with the determinants of health. Exhibit 1.12 lists some of the major factors that determine health status. Healthcare is one component, but many others are present. The increased focus on the determinants of health points to the need for medical practices to be aware of and attend to the other factors. Practices can do more in this area than they are currently; we discuss those ideas in later chapters.

Rising Consumerism

An area of medical practice and healthcare in general that has received regular attention recently is the experience of the patient and their family. In considering this issue, one must first distinguish between two primary models of practice as they relate to patient care: provider-directed care and patient-centered care.

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Exhibit 1.12
The Determinants of Health



Provider-Directed Care

The first model is provider-directed patient care. In this model, which has been practiced for decades in the United States, the provider makes the vast majority of decisions and determines the type and extent of care the patient receives.

One concern related to provider-directed care is that the patient may have little understanding about the treatment being received, and therefore they may be less committed to complying with instructions. For provider-directed healthcare to result in satisfactory outcomes, a patient must have both the desire and the ability to comply with treatment recommendations; thus, individual circumstances are very much a part of the treatment equation.

Patient-Centered Care

The second model is patient-centric healthcare. In this model, the patient and their family play a central role in conjunction with the provider (Jones 2014). The provider offers multiple options to the patient, all of which are medically acceptable, and the patient assumes greater decision-making responsibility regarding the approach to treatment.

Patient-centered care can be seen in decisions related to the treatment of prostate cancer. Prostate cancer is often a slow-growing tumor. In fact, more than 80 percent of men older than age 80 have prostate cancer, but the disease has limited medical consequences in many of these cases. Because of the slow-advancing nature of prostate cancer, two viable approaches are considered for its treatment. One approach, known as watchful waiting, involves careful monitoring of the patient's condition; aggressive intervention is

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not undertaken until definitive signs indicate the cancer is growing. The second option is aggressive therapy. This approach may involve surgery, chemotherapy, or other forms of treatment.

The question is, which to choose? According to a study published in the *New England Journal of Medicine* (Bill-Axelson et al. 2014), the benefits of aggressive therapy are highly dependent on the age of the patient and the type of prostate cancer. This finding gives enhanced credence to the notion of watchful waiting, which may also reduce unnecessary surgery, side effects, and cost.

One major initiative in population health management related to patient-centric care that involves the medical practice is the patient-centered medical home (PCMH). The PCMH provides a starting place for the patient to receive all nonemergency medical care. The model is characterized by 24/7 access to tightly coordinated care managed by a team of providers. Primary care is offered at the PCMH location, and other medical services are referred to specialists as appropriate (NCQA 2021).

Today, physicians are becoming increasingly patient centered. In addition to bringing patients to the decision-making table, they are accommodating them in other ways, such as adopting alternative forms of communication, such as e-mail (Dalal et al. 2016).

Patient Safety and Quality Concerns

In terms of patient safety and quality, the medical practice must ensure that it provides healthcare that meets the following standards (AHRQ 2023; IOM 2001):

- *Safe*—Protecting patients from being harmed by the care that is intended to help them. This goal includes the prevention of nosocomial infections, which are infections acquired in the hospital or healthcare setting; wrong-site surgery; medication errors; falls; and other harmful events.
- *Effective*—Providing services on the basis of scientific knowledge to all who can benefit and refraining from providing services to those not likely to benefit (i.e., avoiding underuse and misuse, respectively).
- *Patient centered*—Providing care that is respectful of and responsive to individual patient preferences, needs, and **values** and ensuring that patient values guide all clinical decisions.
- *Timely*—Reducing wait times for and eliminating harmful delays in care.
- *Efficient*—Avoiding waste, including waste of equipment, supplies, ideas, and energy.

Values
The beliefs and guidelines an individual uses to make choices when confronted with a situation.

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- *Equitable*—Providing care that does not vary in quality because of personal patient characteristics such as race, gender, ethnicity, geographic location, and socioeconomic status.

Demographic Changes

The Graying of America

The baby boom generation is retiring at the rate of about 10,000 people per day. In fact, the most rapidly growing segment of the US population is people older than 85. US residents are living much longer than in the past, and as people age, they tend to need more healthcare. Although healthcare is a major contributor to longevity, it is not the only important contributor; other factors may have an even more significant impact on length of life (Nelson 2016). Only in the past 100 years has longevity been linked to healthcare. Before that time, life expectancy was largely determined by uncontrollable risk, such as infections, accidents, childbirth, starvation, and other similar events. For example, George Washington died from acute laryngitis, a condition that is easily treated today with an antibiotic (Knox 1933).

The "graying" of America will continue to be a significant concern for medical practices: On average, men and women will live almost 20 years beyond age 65 (NCHS 2023):

- Both sexes at 65 years—18.4 years of average additional life expectancy
- Men at 65 years—17.0 years of average additional life expectancy
- Women at 65 years—19.7 years of average additional life expectancy

Changes in the US Population

The increase in immigration to the United States and the diversity of the population are major new considerations for medical practices. US providers are encountering more languages, customs, and beliefs than in the past, making service to patients an increasing challenge. Mastering the nuances of diversity is essential for a modern practice to be successful.

Rapidly Changing Technologies and Related Treatments

The healthcare industry has seen a dramatic shift in the types and complexity of medical technology and the treatments available to patients. This unrelenting trend has led to commensurate complexity of care and increased cost, as well as the need for greater specialization in the delivery of services.

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Digital Transformation and Nontraditional Providers

Not only have the science and technology of treatment changed, but the way healthcare is delivered is changing rapidly as well. A major transformational force in the medical practice has been the rise of digital media tools and nontraditional health providers, such as CVS, Walgreens, and Walmart, that are enabled by digital innovations.

Transformation often does not occur from within the industry being transformed, and healthcare is no exception. In 2020, more than 350,000 healthcare apps were available for smartphones and tablet computers, many of them targeted to the **ambulatory care** environment and most developed outside the healthcare industry (Olsen 2021).

Ambulatory care Healthcare services provided to patients on an outpatient basis, rather than by admission to a hospital or another healthcare facility.

The medical practice must compete with entrants from the information technology industry, the retail pharmaceutical industry, the insurance industry, medical device companies, and internet-based providers from around the world. The emergence of web-based providers has created a whole new mobile health industry known as *mHealth*.

The digital transformation of healthcare is not limited to alternative delivery modes; it has also revolutionized the availability of information. One may consider this development to have a democratizing effect on healthcare, as information about virtually any condition, treatment, or procedure is available on the internet. Like most innovations, it carries both positive and negative consequences. Although a tremendous amount of information is available, this information is often of limited value unless it can be properly interpreted by a professional. A patient may be aware of information but may not understand it and certainly will not be able to apply it to the situation at hand.

Another major issue regarding internet-based information is its accuracy. Physicians are often concerned that patients will access information that is either misunderstood or, in some cases, blatantly inaccurate, which can cause difficulties in the physician–patient relationship. The patient may be skeptical of information provided by the physician because it conflicts with inaccurate information that the patient has obtained from another source and believes to be true. One solution to this problem is to provide patients with high-quality sources for internet-based information about their condition and encourage them to obtain more detailed information. Therefore, the internet can be an educational resource for the physician practice when it is proactively embraced and used properly.

Workforce Issues

For the first time in US history, four generations of employees are in the workforce, and that workforce is becoming increasingly diverse in many other areas as well. These factors present unprecedented challenges, as each generation and ethnic group brings its own temperament; belief system; and preferences for structure, authority, and workplace interaction (Knight 2014).

One issue that arises from intergenerational and ethnic diversity is that people tend to focus on differences instead of looking for similarities to forge collaborations and

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embrace new ideas. This is a key consideration, as the process of collaboration allows people to produce the best outcome possible.

How do we get multiple generations to work effectively in a collaborative fashion? Everyone has much to contribute and share, and practice managers must devise ways for their organizations to tap into the power of diversity. One means to do so is to focus on the shared objective in light of the value that each generation and group brings to the work environment. By making the most of our diverse workforce, practice managers and leaders can combine new concepts and innovations to solve problems together.

The COVID-19 pandemic also exacerbated the problem of burnout among medical professionals. The prevalence of burnout among US physicians jumped to 62.8 percent in 2021, compared with 38.2 percent in 2018. In 2022, one in five physicians said that they intended to leave their current practice within two years as a result of pandemic-related stress (Wilensky 2022).

Financial Constraints

By definition, constraints limit the scope, time, or quality of the product or service being provided. As resources are limited, decisions must be made in an effort to optimize the constraint relationship and thereby deliver optimum outcomes. Of course, financial resources are no different. Financial constraints limit the freedom to act and provide support for people and projects in the organization (Travis et al. 2004).

In a later chapter, we delve into the issues related to fighting financial constraints in more detail. Here, we consider the unique nature of healthcare financing as a source of concern for the practice manager. Although practices set their own fees, in most cases, healthcare is paid for by third-party payers, such as Medicare. Medicare establishes reimbursement limits for services, effectively setting the fees for the practice. Similarly, in the case of nongovernmental payers, such as insurance companies, fees may be negotiated, but negotiation is often limited by the size and market power of the practice. Small practices may be dealt with on a take-it-or-leave-it basis. Most enterprises have their actual payment rate or price established by external **stakeholders**; this represents a unique and challenging aspect of medical practice management.

Stakeholder
An individual or group that has a vested interest in the practice.

As in a society, practice managers and leaders must balance the ideal outcome with what is possible given that all resources are limited to some extent. Doing so requires a combination of personal responsibility and practice accountability.

Leadership Challenges

The list of challenges discussed to this point is significant. To address them, medical practice leaders and managers must be adept at guiding change in their practice.

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The Reimbursement Paradigm Shift

The paradigm of medical practice is currently experiencing a seismic shift. Most businesses and industries undergo transitions of their business and operational models over time as the environment of the industry changes. However, the current **paradigm shift** means that medical practices will be paid differently than in the past, placing a lot of pressure on how practices adapt to other changes occurring in the healthcare system, such as the way medical care is delivered.

Paradigm shift
A change in the way a practice views its business.

What Happens to Organizations When a Paradigm Shift Occurs in an Industry?

A paradigm is the way stakeholders think an industry should behave—the model they hold in their mind. This model has a strong hold, like a set of strong beliefs; thus, changing a paradigm is difficult.

A paradigm shift is a major change in the way the world thinks about something. One example of a paradigm shift occurred in the photography industry when cameras became digital. Kodak, a company with a history spanning more than a hundred years, was fixated on film and slides and the cameras that used these photographic modes. As digital photography became widely adopted, Kodak refused to act on the paradigm shift and continued to focus on film and cameras and more film. Essentially, Kodak's leaders forgot that the business they were in was not about photography but about people. And people—consumers—had become less interested in film cameras; they were more interested in recording their lives and preserving memories. The modality mattered less to them than the activity. The irony is that Kodak had invented digital photography but chose not to pursue the technology for the commercial market (Lucas and Goh 2009). Steve Jobs of Apple saw the potential of making the digital camera part of the popular iPhone, providing an effortless way to take pictures that met the needs of most photography consumers.

This is an example of the *second curve*. This concept was introduced by healthcare futurist Ian Morrison in 1996. He posits that service and product innovation go through a series of curves. Each curve represents a product or service that matures over time and then is replaced by either a new or improved service or product. Entities that operate in an industry undergoing a paradigm shift must move past the first curve or they are doomed to failure. In healthcare, the second curve is represented by **telemedicine**, web-based medical services, on-demand medical services, and new information technologies used to analyze and understand patient populations and their needs. Practices that fail to enter the second curve will become obsolete as well. An important aspect of paradigm shifts is that they cause participants' knowledge base to shrink; every player starts over to build a new model of care.

Telemedicine
The use of electronic communications and information technologies to provide or support clinical care at a distance.

The transition point from the first curve to the second curve is called the *strain*. Here, the demand for and provision of healthcare shift from being experienced predominantly the old way to predominantly the new way—for example, from office visits to virtual visits.

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The strain is a difficult point in a practice's operational life, and many businesses fail during this period. The organization must function in both paradigms simultaneously, aiming to move safely from the first curve to the second curve. Because the US healthcare system is changing incrementally from volume-based reimbursement (the old paradigm) to value-based reimbursement or **pay for performance** (the new paradigm), the second curve challenge for medical practices is that they must continue to operate in a volume-based system while slowly transitioning to the value paradigm. At the time of this writing, the majority of **revenue** for medical practices remains volume based (Miller 2012).

Pay for performance
A mechanism whereby providers are reimbursed on the basis of their success in meeting specific performance measures.

Revenue
The amounts received by or due to a practice for goods or services it provides to customers. Receipts are cash revenues; revenues may also be represented by accounts receivable.

What Is Value?

Value is a function of cost and quality, as demonstrated by the following equation:

$$\text{Value} = f(\text{Cost}/\text{Quality})$$

In practical terms, value is what we are willing to pay for: what we see as a fair exchange of our resources (money) for something we receive (healthcare). Cost comprises all the economic and noneconomic inputs needed to receive the service. It includes money, of course, but also such factors as waiting time, access, perception of caring, and many others that may be particular to the individual expending the cost.

Quality is a measure of how good the service is. In healthcare, it can be determined by many factors. Some questions that may help ascertain quality include the following:

- Did I get well?
- Was the service timely?
- Were the staff and physicians friendly?
- Do I understand what the follow-up treatment entails?

Medical practices often quantify quality using metrics such as the following:

- Time to third available appointment (a measure of appointment availability)
- Number of calls that go unanswered (a measure of access)
- Waiting time (a measure of timeliness)
- Whether follow-up on lab and imaging services took place as needed, and length of time to follow-up (a measure of thoroughness)
- Patient satisfaction scores (a measure of the patient's perception of overall quality)

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Determinants of Health

Another important issue in practice management, and in healthcare administration in general, is understanding the determinants of health. (Review the select factors listed in exhibit 1.12 that go into determining health.) Many determinants are outside of individuals' control, such as the generation or era that one is born in or one's biological sex, race, and other genetic and biological factors. Other determinants, including individual behaviors; family and community networks; living and working conditions; and broad social, economic, cultural, health, and environmental conditions, are controllable to greater or lesser degrees. All these factors can have a tremendous impact on overall health.

Every practice must consider its role in mitigating these issues, which go beyond what are traditionally considered to be "healthcare issues." Practices should engage patients in improving self-care and self-management, and they must be leaders and advocates for change in the lifestyle behaviors that have led to increases in the disease burden.

Furthermore, public policy plays a major role in health determinants, such as equity of care, and healthcare professionals should advocate for improvements to health policy that influences these issues.

Changes in Health Coverage

Since health insurance became commonplace after World War II, numerous changes have occurred in how healthcare is paid for. Originally, health insurance was primary indemnity coverage. This coverage provided payment to physicians or repaid the patient for the out-of-pocket costs incurred in seeking medical treatment as set forth in the policy.

Managed care became common in the 1980s and has gone through a number of transitions over the years. A relatively recent invention in health insurance, the consumer-directed health plan (CDHP), is having a profound impact on the medical environment. CDHPs provide coverage for medical services, but only after a substantial out-of-pocket deductible has been met by the patient. This requirement has led some patients to delay care or fail to pay the provider for care received because they do not have sufficient funds to cover the deductible. The latter results in the provider or medical practice encountering increasing amounts of **bad debt**.

Healthcare finance is covered in detail in chapter 7.

Bad debt
Amount owed to a practice that will not be paid.

Changes in Organizational Structure

In modern times, the predominant form of medical practice has been solo practice or small practice groups and partnerships. However, as the US healthcare system has evolved in response to value-based reimbursement and other **environmental factors**, consolidation of medical practices is occurring. Much more about this topic is covered throughout the remainder of the book.

Environmental factors
Forces that influence the business but are external to the business itself, such as public policy, regulations, and economic conditions.

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The Complexity of the Healthcare Environment

The healthcare environment has become highly complex and will only continue to increase in complexity. Numerous new technologies and services as well as increasing volumes of information lead to new management challenges. For example, as discussed in depth in chapters 6 and 7, the move from using the International Classification of Diseases, Tenth Edition, Clinical Modification (ICD-10-CM) to ICD 11 for documenting diagnostic codes for reimbursement increased the number of codes from approximately 69,000 to 120,000 addressable terms and 17,000 unique codes (WHO 2022). In addition, an entirely different set of codes, Current Procedural Terminology codes, increased to more than 71,000 codes from the previous set of 3,824 codes (NCHS 2015).

Scientific and Technological Change

The technological achievements in healthcare have been nothing short of remarkable. Consider that just a few years ago, major surgery was a common treatment option for a person suffering from stomach ulcers, requiring a hospital stay and posing surgical risk. Today, many people with stomach ulcers can be treated with a simple over-the-counter medicine known as a proton pump inhibitor.

Another example of technological advances is related to diagnostic imaging. Until the introduction of advanced imaging technology such as computed tomography, ultrasound, and magnetic resonance imaging, exploratory surgery was often necessary to determine the patient's ailment.

The Cloud of Anxiety

All this change and attendant pressure on the modern medical practice has created a "cloud of anxiety," as illustrated in exhibit 1.13. With so many variables to address and the

Exhibit 1.13
The Cloud of Anxiety



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Exhibit 1.14
What Leaders Must Do

Interpret reality in an understandable way.

Explain the present in clear and factual terms.

Paint a compelling picture of the future.

Develop followers, and help them become problem solvers.

Lead change, and move toward the vision of the future.

prospects of disruption to deal with on a daily basis, the seemingly constant uncertainty requires a new type of leader for this new era—one who can accurately interpret reality, explain the present, paint a compelling vision of the future, and lead the necessary change (exhibit 1.14). To ensure the success of the future medical practice, the practice manager must be this kind of leader.

Discussion Questions

1. Discuss the importance of the medical practitioner to the healthcare system.
2. Describe several of the forces of change affecting the medical practice.
3. What are some challenges faced by the medical practice manager?
4. The metaphor "the perfect storm" has been used to describe the changes in healthcare. What does it mean in the healthcare context?
5. Describe and discuss several of the models of medical practice.
6. An increasing percentage of physicians are employed by hospitals, healthcare systems, and corporations. What are some of the consequences of this change?

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CHAPTER 2

PRACTICE MODELS AND LEGAL ORGANIZATION

Culture eats strategy for breakfast.

—Peter Drucker

Learning Objectives

- Describe the wide range of medical practice models.
- Characterize the relationships between physicians and healthcare institutions.
- Understand the duties and responsibilities of the practice manager.
- Appreciate the importance of the mission, vision, and values of the practice.

Structures and Organization

The healthcare portion of the US economy continues to increase as a result of population growth, the aging population, and other factors, all of which are discussed later in the text. This continued growth is one reason the US healthcare system needs transformation and reform.

Medical practices play an increasingly important role in this transformation as practices become integrated into the overall healthcare delivery system. Therefore, reform cannot occur without physician involvement. One change that is already taking place is a trend toward large, integrated practices (Adamopoulos 2014). Integrated practices are those

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that are part of other organizations. In 2020, 70 percent of physicians identified themselves as employed by a healthcare organization (Dyrda 2021). Adamopoulos (2014) also noted a trend toward larger and more complex organizational practice structures.

These shifts bring new challenges for practice management professionals related to competitive pressures and the complexity of managing a large medical practice.

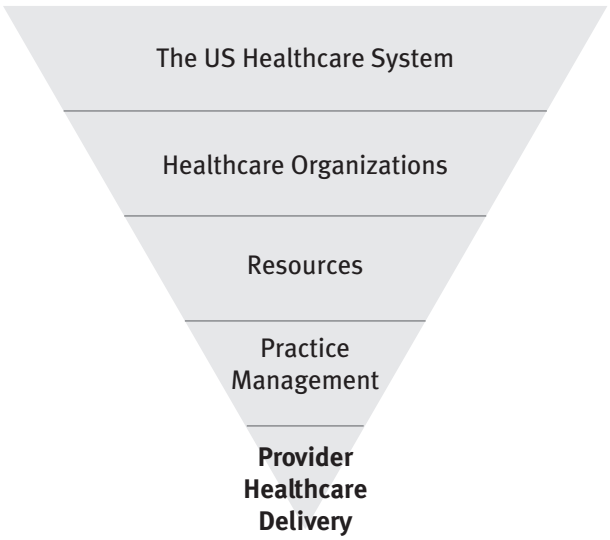
The Healthcare System Hierarchy

Before we can begin to address these challenges, it is necessary understand the medical practice in the context of the overall healthcare system. As shown in exhibit 2.1, the medical practice plays a pivotal role in the US healthcare system because it provides continuity in the delivery of healthcare. Many, if not most, patients enter the healthcare system and are cared for at the individual provider level—often the medical practice—and they are followed over time by the same practice. All aspects of the healthcare system rely on the direction of the physician to function and to trigger the use of resources.

Mission, Vision, and Values

A fundamental aspect of any organization, including the medical practice, is its governance framework, which includes the board of directors or trustees and senior management. As illustrated in exhibit 2.2, governance is guided by a mission, a vision, and values for the organization. This philosophical foundation provides the basis for strategic planning, which is a means of creating the goals and operational objectives of the medical practice.

Exhibit 2.1
The Healthcare System Hierarchy



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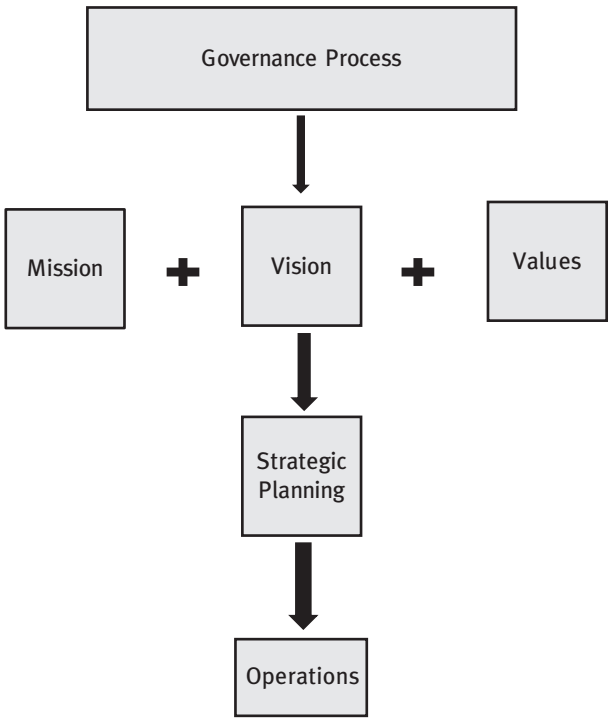


Exhibit 2.2
Mission, Vision, and Values

All aspects of decision-making by the practice manager should be guided by the mission, vision, and values of the practice.

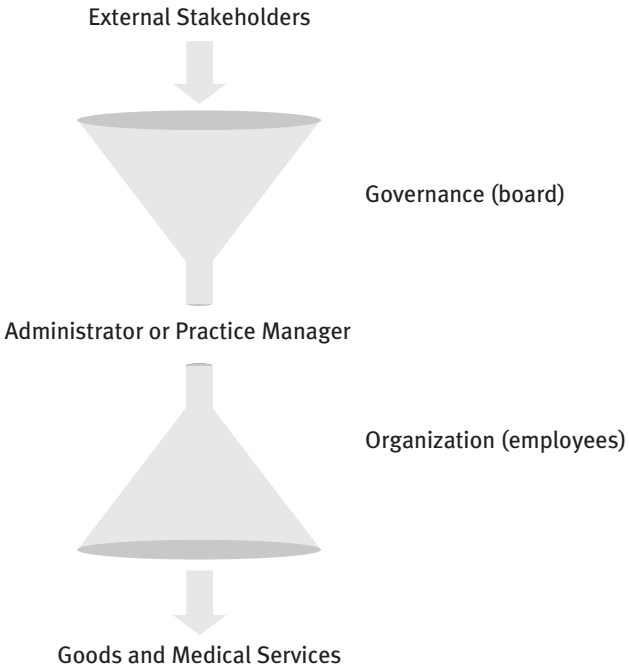
The mission of the organization is the reason it exists. The mission statement describes the overall purpose and intent of the organization. The vision of the organization describes the future state of the organization if it is successful in achieving its mission. The values of an organization articulate the beliefs the organization holds most dear and how it behaves as an entity in adhering to those values.

Relationship of the Practice to Its Stakeholders

Medical practices have many stakeholders—both internal and external to the organization. The effective medical practice is conscious of all these relationships and carefully engages with them to carry out its mission. The practice manager and other practice leaders must understand the needs and concerns of all these constituencies, as they are critical conduits who must translate the input of the governing body and external stakeholders into the operational units of the practice. Exhibit 2.3 illustrates the interrelationships of different stakeholders in a medical practice.

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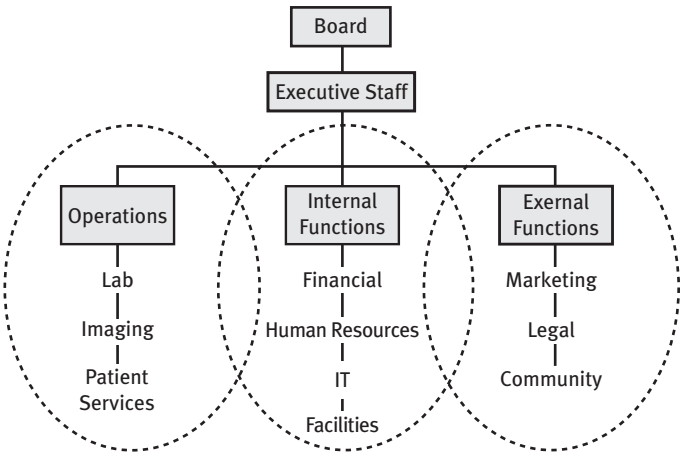
EXHIBIT 2.3
Stakeholder Relationships of the Medical Practice



GENERAL STRUCTURE OF THE MEDICAL PRACTICE

Exhibit 2.4 illustrates a functional structure for the medical practice. It demonstrates the relationship between the operational aspects of the practice, where care is provided to patients, and the internal and external functions that support practice operations and engage with the external environment.

EXHIBIT 2.4
Operational Structure of the Medical Practice



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Taxonomy of Practice Models and Legal Organization

Practices are organized in variety of forms, ranging from small, individual, or solo practices to large, highly organized practices with hundreds or even thousands of providers (exhibit 2.5). In general, the larger the organization, the more structured, complex, and integrated it will be (Galbraith 2014).

The degree to which a practice is integrated ranges from virtually no integration, as with a solo practice; to moderate integration, such as a group practice, which may include many providers and numerous specialties; to a fully integrated practice that is a wholly owned subsidiary of a healthcare delivery system or an accountable care organization (ACO). The integration of medical practices is discussed in terms of two dimensions. The first is the integration of business and administrative services, such as billing and marketing. The second is the integration of clinical services.

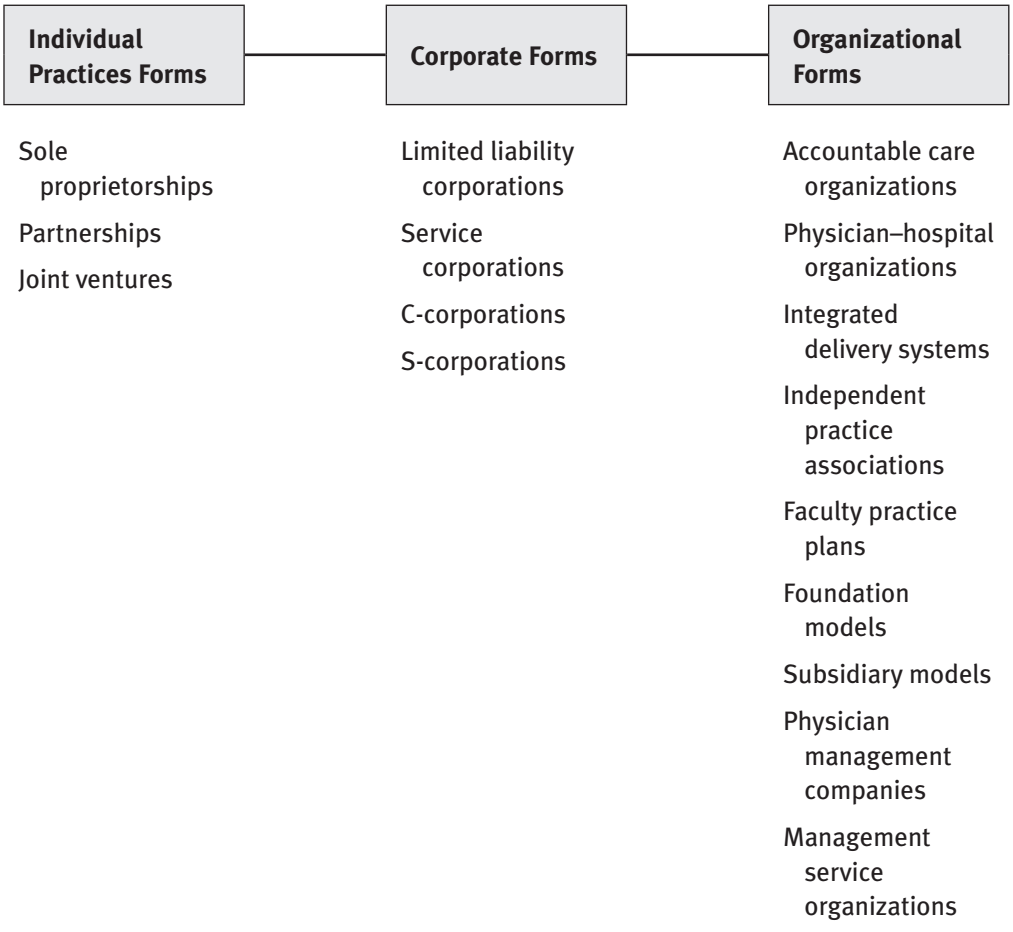


Exhibit 2.5 Medical Practice Taxonomy

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Multispecialty group practices have two key characteristics: They are highly integrated, with a common governance and leadership or management structure, and they have a highly developed corporate system for managing finances and ensuring compliance with regulatory agencies. They differ greatly in operation and governance from solo practices, which are largely overseen by the practitioner who owns the practice. The specific differences are discussed in detail later in this book.

Practices may choose to integrate for any number of reasons. The most common reason is that economies of scale can be achieved by pooling resources to carry out the necessary functions of the medical practice. One of the most important economies of scale for medical practices is the ability to manage the complex aspects of today's practice, including finances, the regulatory environment, and the increasing need for the practice to respond to the changing healthcare environment.

Characteristics of Practice Organizations

Many important organizational elements must be considered when planning the form the medical practice will take. These factors include taxation, liability, the number of members, ownership, the extent of personal flexibility and autonomy allowed, transferability of ownership, **capital** formation, and vision (Wagner 2013).

Capital
Resources, usually cash, available to invest or use for operations.

Practices that are sole proprietorships place individual responsibility on the practitioner to fulfill the financial, service, and other obligations of the organization. This form of ownership offers the advantage of control but holds the practitioner accountable for the entire operation.

Practices may also be formed as corporations, which are discrete entities in the eyes of the law (Showalter and Sanford 2023). A corporation may enter into legally binding contracts, including debt obligations. In addition, because the law regards a corporation as an "artificial person," it can be prosecuted for a variety of criminal behaviors, such as fraud, wrongful death, and other criminal acts. It can be sued for negligence or liability, it can be licensed, and it must pay income taxes. These characteristics of corporations allow the medical practice to act as a single entity even though it may include many individual practitioners and areas of the organization that carry out separate functions. Corporations generally shelter the individuals who make up the organization from its liabilities. The major exception to this protection in a medical practice is that the corporation cannot shield individual practitioners from medical negligence and liability.

Corporations can be for-profit or not-for-profit. For-profit organizations have shareholders and pay taxes. Some advantages of the taxable corporate form over the not-for-profit include the following:

- They are easier to set up.
- They are more flexible in terms of governance.

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- They are subject to less regulation.
- They can legally manage taxable income.
- They are subject to fewer restrictions on compensation arrangements.

However, there are disadvantages to being a for-profit entity:

- They must pay income taxes to both the state and federal treasury when they make a profit.
- They cannot seek tax-deductible donations for unprofitable services.

Not-for-profit, or tax-exempt, organizations are established under section 501(c)(3) of the Internal Revenue Code. They, too, carry distinct advantages and disadvantages (IRS 2023). Some advantages of not-for-profit over for-profit organizations include the following:

- They are allowed to solicit tax-deductible donations.
- They may enjoy a more positive public image.
- They do not pay taxes to the state or federal treasury as long as the organization operates within the tax-exempt guidelines.

Disadvantages of not-for-profit status include the following:

- Additional paperwork is required to apply for tax-exempt status.
- Not-for-profit organizations are required to follow Internal Revenue Service regulations regarding tax-exempt organizations.
- They are required to have a board of directors that has community representation.
- All their financial transactions must be performed at arm's length, meaning insider dealing is prohibited.
- Compensation arrangements may be restricted.

It is common in today's healthcare environment for practices to be owned by large healthcare entities such as hospitals or healthcare systems. These larger entities may be for-profit or not-for-profit corporations. In the case of for-profit hospitals or healthcare systems, they may be privately held or publicly traded organizations; the latter form means that the shareholders may be any individuals or entities that wish to buy shares in the organization.

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Affiliation Versus Employment Models and the Corporate Practice of Medicine

The extent to which medicine can be practiced is dictated by each state, either by statute or by other means such as licensure. These rules are generally codified in state regulations known as corporate practice of medicine doctrines. These doctrines prohibit a corporate entity from owning practices and directing medical practitioners so as to prevent the control of medical care by those who are not trained or motivated to provide care in the best interests of patients. Many states prohibit any ownership of a medical practice by nonproviders for the same reason. At one time, these rules placed limits on physicians being employed by corporations or selling their practices to hospitals and other healthcare entities. The corporate practice of medicine doctrine is largely controlled by state medical boards and varies widely by state. Corporate entities can satisfy the doctrine by implementing contractual arrangements with physicians that specifically place medical decision-making in the hands of licensed professionals (AMA 2015; Cohen Healthcare Law Group 2023).

The employment of physicians or affiliation of physician practices with other healthcare entities takes different forms, as described in the sections that follow.

The Employment Arrangement

The most straightforward is the employment arrangement. In this arrangement, the physician or provider becomes an employee of the organization, and the working arrangement is often detailed in an employment agreement. Exhibit 2.6 lists some features of an employment agreement.

Benefits and Compensation

Benefits and compensation provisions specified in the employment contract include the salary the provider is to receive and how that salary is calculated; many practices use formulas to

Exhibit 2.6
Key Features of an Employment Agreement

Benefits and compensation	Restrictive covenants
Salary	Perfect performance
Nonsalary terms	Contract terms
Ownership/partnership	Termination provisions
Outside activities	Tail insurance
Job requirements	Nonassignability

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determine compensation (discussed in more detail in chapter 7). The contract also specifies important nonsalary benefits, such as the following:

- Vacation pay
- Health insurance
- Disability insurance
- Pension or retirement savings **account**
- Allowances for meetings and entertainment **expenses**
- Transportation or car allowances as required for the practice
- Continuing education benefits

Account
A record of financial transactions; usually refers to a specific category or type.

Expense
An expenditure that is chargeable against revenue during an accounting period resulting in the reduction of an asset.

In addition, the contract often specifies practice accoutrements that the provider receives, such as cell phones, office furnishings, and other equipment or accessories.

Ownership

Some private practices offer physicians the opportunity to purchase an ownership stake or become a partner in the practice. Such terms are typically detailed in the contract or included by reference in a separate agreement that specifies how the provider becomes an owner. Inclusion by reference is an important concept in contract law. Contracts that reference a document, such as a policy, essentially make the referenced document part of the terms of the contract. All the parties to the contract must be clear on which terms from the document are incorporated into the contract to avoid future disputes and misunderstandings.

Many practitioners engage in entrepreneurial activities such as writing books, developing software, and other types of medical enterprises. The employment contract should specify the terms and conditions under which these activities are permissible and to what extent, if any, the benefits from these activities belong to the contract holder. Such provisions are often overlooked in contracts and can lead to misunderstandings and difficulties when issues arise after the contract has been signed.

The job requirements may also be delineated in the contract. These may entail working hours, the location where the practitioner is expected to work, the number of days per week that the provider will be available to practice, the amount of call coverage to be taken, and the method for distributing call coverage among the practitioners.

Restrictive Covenants

A controversial area of contract law is the restrictive covenant. This provision sets certain parameters, usually related to future working restrictions if the provider leaves the practice.

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Simply put, it restricts the practitioner from engaging in the practice of medicine for a certain period of time within a specified distance of the previous practice. In some states, such provisions are prohibited; in other states, they are discouraged but legal. In states where the restrictive covenant is permissible, the covenant is almost always bound by certain reasonableness standards. The first standard is the length of time that the restrictive covenant may be in place: the shorter the time, the more enforceable the covenant may be. The second standard considers how far the practitioner must move to be compliant with the covenant. Obviously, a restrictive covenant that prohibits practice in an entire region or state is unreasonable and would be found unenforceable by a court of law.

In many cases, the restrictive covenant calls for "perfect performance," meaning the provision can only be satisfied by doing what is specifically stated in the contract. In other cases, the restrictive covenant may offer a buyout provision, allowing the practitioner leaving the practice to pay a certain sum to negate the restrictive covenant. Regardless of the provisions, the practitioner must understand the nature of the restrictive covenant and be willing to abide by its terms.

Terms of the Contract

Contract terms are always stated in the contract. They include length of the contract, the state laws under which the contract is governed, whether arbitration will be used as a method for settling disputes, and any other conditions related to the administration of the contract.

Effective contracts also include a termination process or termination provisions. These clauses specify how the parties to the contract will conduct themselves once the contract has expired and how the contract can be otherwise terminated. Contracts typically can be terminated for failure to perform by either party. For example, if the practice refuses to pay the provider, the provider has a claim of nonperformance under the contract. Conversely, if the provider fails to provide medical care as specified under the contract, the practice has cause to terminate the contract. Some contracts simply expire. In this case, decisions must be made to determine how medical records are handled and any continuation of benefits or access to practice resources. A restrictive covenant usually survives the expiration of the contract, meaning it is enforceable after the contract has ended.

Tail Coverage or Extended Reporting Endorsement

One aspect of ending the practice relationship involves the provision of tail coverage for malpractice insurance. This coverage extends insurance protection to the provider for all prior occurrences of alleged or actual malpractice that occurred while the provider was employed by the practice. These policies can be expensive; therefore, the contract should specify who is responsible for purchasing tail coverage. The practice almost always requires that malpractice tail coverage be purchased by the practitioner (see also chapter 4).

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Nonassignability Clause

Most provider employment agreements contain a nonassignability clause. This provision simply states that the contract may not be assigned to another individual, in essence allowing someone else to take the provider's place in the practice. Although this limitation may seem obvious, the clause is an important part of the employment agreement.

Some Final Details About Employment Contracts

For a contract to be enforceable and considered legally binding, it must contain five elements (McKendrick 2012):

1. An intent to enter into an agreement.
2. An offer.
3. Acceptance of the offer.
4. Consideration, which, in the case of an employment agreement, means economic benefits, such as a salary, in exchange for services rendered to the practice.
5. A legal capacity to enter into the agreement. Although unlikely in the case of a provider service agreement, a minor cannot enter into a legally binding agreement.

In addition to these five elements, the subject matter of the contract must be of a legal nature. This component is particularly important in the area of medical services because of the many private inurement rules and anti-kickback provisions that exist in the regulatory environment of the medical practice (see chapter 4 for details). If the contract contains requirements to break the law, it cannot be enforced. Notably, although contracts are usually enforced and governed by specific state laws, federal issues arise related to Medicare, Medicaid, and regulations that govern the practice of medicine.

Severability clauses may be important elements as well. In some states, if any provision of the contract is held to be unenforceable, the entire agreement is unenforceable. In other jurisdictions, only the offending clause is voided. Contracts may also contain language that requires the parties to negotiate a resolution to any clause of the contract that is found unenforceable or illegal to bring the contract into compliance. This is an important consideration in today's healthcare environment, as laws and regulations change so quickly that an acceptable activity may become illegal as a result of policy changes, requiring those aspects of the contract to be changed or eliminated.

The development and execution of an employment agreement in the medical practice require expertise in state and federal law. Often, this is an area for which the practice seeks outside counsel to be certain these important documents are handled correctly.

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Affiliation Agreements with Other Organizations

In an affiliation agreement, the practice signs a contract with another party, typically a healthcare entity, to provide certain specific services under a contractual arrangement. A major difference between an affiliation agreement and an employment contract is that under an affiliation agreement, the provider remains an independent contractor and continues to own and manage their practice. Any restrictions on the practice are enumerated in the affiliation agreement.

Affiliation agreements vary widely and may involve the provision of specific medical services, educational affiliations, and management services. Such agreements are often entered into because one or both parties do not wish to become fully integrated but see a need for specific services to be delivered and some level of cooperation to do so (see, e.g., Blum 2013).

Culture and Organization

Culture can be defined as the beliefs, customs, practices, and behaviors of a particular group. Simply put, culture dictates how an organization conducts business, what it values, how it gets things done, and how it views itself. The culture of an organization defines how it treats its members and what behaviors it expects from them. Culture is a powerful force; as Peter Drucker is said to have stated, "Culture eats **strategy** for breakfast."

Strategy
The science of business planning whereby an organization plans its approach to achieving its goals.

The relationships between practitioners and institutional providers, such as hospitals and healthcare systems, may become strained because of the significant cultural differences between the parties. Almost by definition, medical practices are less formal—they are what Robbins (1990) refers to as "professional collegial organizations." In these organizations, the primary producer is also the owner and governs the organization. Often the cultures of the two healthcare segments clash and create management problems that must be addressed by the medical practice (Schein 2016).

Part of the problem centers on expectations of each party being established prior to the acquisition or affiliation. A cultural fit survey is essential to determining compatibility, as is having a clear understanding of what each party wishes to accomplish as a result of the combination of the organizations. As exhibit 2.7 shows, culture dictates virtually every aspect of the organization by influencing

- organizational structure and governance;
- mission, vision, and values;
- goals, tasks, and incentives;
- performance and the expectations of people in the organization; and
- information systems and other operational infrastructure.

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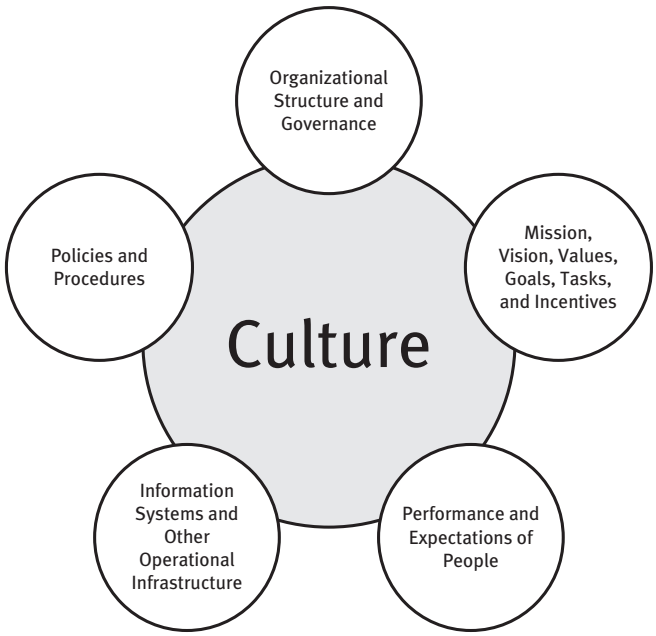


Exhibit 2.7
Culture Affects All Aspects of the Practice

Culture is both codified by formal policy and procedure and imbued by informal means through the behavior of its members. The more the culture is aligned with positive behavior, the more effective the organization will be. For example, if organizational leaders say they value and expect courteous treatment of others but allow disrespectful behavior to go unchallenged, they degrade the culture (Drucker 2006).

Academic Medical Centers and Physician Practice Management

Several hundred hospitals in the United States carry the special designation of academic medical center (AMC) (AHA 2022). AMCs are typically members of the Association of American Medical Colleges and its subsidiary, the Council of Teaching Hospitals (AAMC 2023). Like other hospitals, they also are often members of the American Hospital Association. An AMC has an organizational structure that is different from other for-profit or not-for-profit solo or multispecialty practices.

The number of AMCs and their associated medical practices, as with most healthcare organizations, grew rapidly after World War II, when federal funding for medicine increased significantly. This growth was driven by a number of factors:

- The advent of the third-party payer following World War II

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- The introduction of Medicare and Medicaid in 1965, which stimulated research and allowed for the application of the resulting technologies in the treatment of many more patients
- An increase in patients' expectations of the US healthcare system
- The creation of many new medical specialties focused on the treatment of complex illnesses

Physician practices often are involved with AMCs, so practice managers must be knowledgeable of several elements of this important healthcare organizational structure. AMCs are typically integrated into the teaching and research functions of the medical schools at major research universities. They often offer unique and highly specialized medical services requiring the availability of physicians with specific training in complex areas of medicine. Examples are Level I trauma services, transplantation services, and the use of sophisticated diagnostic technology such as positron emission tomography (PET) scanners. Physicians who practice in AMCs are often involved in teaching and research functions.

Making generalizations about how physician practices associate with AMCs is difficult. The physicians in the practice may be employed as faculty to provide clinical services; the practice may be affiliated by contract, as previously discussed, fulfilling specific needs of the AMC; or the practice may be wholly owned by the AMC. One important distinguishing characteristic related to the medical practice in an AMC is that it is often mission based, and as a result, less emphasis is placed on productivity as a function of patients seen or relative value units produced. Productivity may include such aspects of medical activity as research, time devoted to teaching, presenting at conferences, and other scholarly endeavors.

Accountable Care Organizations

One of the most influential developments in determining the structure and organization of medical practices is the ACO. These healthcare delivery constructs are a central feature of the Affordable Care Act (ACA) of 2010 (McWilliams et al. 2018), and in many ways, they are defined more by what they do than by their structure. In general, an ACO is a group of providers who share responsibility for a population of patients and the quality, cost, and coordination of their care. Two notable features of ACOs are that they can

- be any a combination of group practices, practice networks, hospitals, or hospital-employed physicians and providers, and
- be joint ventures, with the proviso that they must be able to receive and distribute payments.

All members of the ACO do not have to belong to a single entity; they can be bound by a contract. However, an ACO must include physicians in its membership (AAFP 2023).

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The ACO works with insurers, the largest being Medicare, to achieve improved health outcomes. Specifically, ACOs seek to accomplish the following goals, referred to as the Triple Aim (IHI 2023; see chapter 10):

- Improve population health
- Improve the patient experience
- Reduce the total cost of care

In short, ACOs create a framework for value-based purchasing, which refers to a broad set of performance-based payment strategies that link financial incentives to health-care providers' performance on a set of defined measures in an effort to achieve better value (Damberg et al. 2014).

Most of the arrangements between the payers and the ACO involve incentives for reducing cost such that the ACO receives payments if agreed-on targets are met. A central aspect of the ACO is to provide enhanced preventive care; therefore, the care delivered by ACO primary care providers is central to the success of the ACO.

Although they are more sophisticated in some respects, ACOs are reminiscent of health maintenance organizations (HMOs) because they emphasize wellness and prevention as a health and economic strategy and focus on primary care. HMOs are prepaid or capitated health insurance plans for which the patient (or their employer) pays a fixed fee each month instead of paying for the cost of each service received. Services are delivered by providers who are under contract with (or are employees of) the HMO. ACOs provide incentives for shared savings, making prevention a hallmark of the concept. Patients and providers both benefit, in theory, through attentive patient management, improved outcomes, and reduced cost. In addition, economic opportunity accrues for the physicians, hospitals, and other provider organizations that are part of the ACO.

The ACA established an ACO for Medicare providers called the Medicare Shared Savings Program (MSSP) as part of reforms to the Medicare delivery system. The MSSP is intended to improve outcomes and increase the value of care by rewarding ACOs that "lower their growth in health care costs while meeting performance standards on quality of care and putting patients first" (CMS 2023a). Additional ACOs are being developed with commercial insurance carriers. As of January 1, 2023, 456 ACOs were engaged in the MSSP, with 10.9 million assigned beneficiaries (CMS 2023b). All 50 US states now have at least one ACO shared savings program.

Clinical Integration

Clinical integration is receiving much more attention than in the past as an alternative care delivery model concept. More than a type of organizational structure, integrated

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delivery systems (IDSs) seek to provide integrated clinical services. Specifically, the clinical integration model aims to provide care to the patient in a longitudinal (or long-term and coordinated) manner without necessarily having all the providers of care reside in a single entity.

Joining or developing an IDS requires the following elements to be in place:

- Collaborative leadership
- Involved governing body
- Compliant legal structure
- Effective payer strategy
- Culture change
- Aligned incentives for physicians
- Value-based compensation
- Program infrastructure
- High performance
- Network physician leadership and support
- Clinical programs
- Disease programs
- Care protocols
- Clinical metrics
- Population health management
- Technology infrastructure
- Health information exchange
- Disease registries
- Patient longitudinal record
- Patient portal to enable engagement

Considering the longitudinal nature of clinical integration, the model focuses much more on developing procedures geared toward achieving excellent outcomes than relying on organizational structure to maximize the benefits. The clinical integration model is

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an approach to solving the problem of fragmented care. The essential features of clinical integration are as follows (Strandberg-Larsen et al. 2010):

- Providing care across the continuum of services
- Improving individual care outcomes
- Improving the health of all of the patients served by the organization (population health)

Clinical integration can be accomplished by contracting with other providers; merging with other practices or being acquired by a health system; or having all the clinical care providers agree to established protocols of care, which provides for a more seamless continuum of care for the patient and greater economic synergy.

Patient-Centered Medical Homes

The patient-centered medical home (PCMH) is a concept introduced by E. H. Wagner in 1998. Unlike many of the approaches that are pervasive in the healthcare field today, such as more efficient treatment, better drugs, and new care modalities to care for the sick, the PCMH is focused on prevention and early intervention for patient care. This focus is especially appropriate for patients who are chronically ill, as early intervention can delay the worsening of a condition or prevent the emergence of further complications and other consequences of **chronic illness**, such as kidney failure in diabetic patients. The PCMH helps ensure continuity of care and offers expert guidance in navigating the healthcare delivery system by serving as the starting point for all of a patient's medical concerns. Any physician practice can become a PCMH by adhering to the following six principles and standards, which form the basis for certification by the National Committee for Quality Assurance (NCQA 2023).

Chronic illness
Diseases characterized by one or more of the following criteria: They are permanent; leave residual disability; are caused by nonreversible pathological alteration; require special training of the patient for rehabilitation; or require a long period of supervision, observation, or care.

- *Patient-centered access*—The practice must be able to provide needed care 24 hours a day.
- *Team-based care*—All members of the practice must be engaged in providing the patient with needed information and meeting the cultural and linguistic needs of the patient.
- *Population health management*—The practice must collect data for population health management purposes.
- *Care management and support*—The practice must support evidence-based guidelines for prevention and for acute and chronic care management.

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- *Care coordination and care transitions*—The practice must track and coordinate tests, referrals, and care transitions.
- *Performance measurement and quality improvement*—The practice must use data and experience for purposes of continuous improvement.

Physician practices that are interested in becoming a PCMH should reflect on the following questions before beginning the process:

1. Does the practice value the patient as an active participant in their own healthcare?
2. Is the practice able to develop and maintain an ongoing personal relationship with the patient for achieving continuity of care?
3. Can the practice lead a team of professionals, inspiring and empowering them to fulfill the mission of the medical home concept?
4. Is the practice able to establish solid professional relationships with other physicians, particularly those who specialize in different fields, to secure specialized care for patients?
5. Does the practice believe in the concept of prevention of disease and illness and a holistic approach to medicine?
6. Is the practice able to help the patient navigate the complex field of healthcare?
7. Is the practice open to patient feedback and to seeking quality improvement based on that feedback to ensure that patient expectations are met (and in some cases exceeded)?
8. Does the practice embrace technology to support patient communication, care, and education?
9. Is the practice prepared to adopt the needed workflow and process modifications? Does the practice have adequate staff (in both number and skill) to manage the increased accessibility to its patients (increased volume of e-mails and after-hours phone calls)? Does the practice have adequate information technology (IT) staff to manage video chat capabilities and mobile health applications?
10. Does the practice have the IT infrastructure to support the services offered by a PCMH? Does it have an electronic health record (EHR) system in place? Is

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the EHR interoperable with the rest of the community healthcare providers, such as hospitals, rehabilitation centers, and other medical practices?

11. Does the practice staff have adequate training to provide health coaching? For example, are they experienced with techniques such as motivational interviewing? Does the practice have the capacity to organize disease-specific support groups? What behavioral or mental health services will it offer its patients?
12. What kind of care teams will the practice provide its patients? What specialists and care providers will make up these care teams? Do they have adequate relationships with other providers who are willing to join the PCMH?
13. Is the practice prepared to assess process and outcome improvements? What performance measures will it use to track its progress?
14. Does the practice wish to become a certified PCMH? If so, has it chosen a national accrediting body through which to apply for certification?
15. Is the practice currently financially stable enough to take on the **risk** of shifting to the value-based purchasing model of the PCMH?

Risk
The possibility of loss, inherent in all business activities. High risk requires high return. All business decisions must consider the amount of risk involved.

Not enough practices ask these important questions as they begin to develop a PCMH. As with so many decisions in the healthcare world, mindset is everything. Practice leaders must have a deep understanding of what the practice wishes to accomplish and how best to implement the effort.

Additional Considerations Related to Medical Homes

The overall promise of the PCMH is that it helps frame a medical practice's approach to offering value-based care. One way it does so is by allowing the practice to simplify a complex environment. The payment system that drives practice management encourages incremental improvement efforts, bolting on process after process, procedure upon procedure, making systems difficult to work with, rather than taking the time to think through the value that each process adds and how it operates.

Consider waiting time. The scheduling structure in medical practices is largely dictated by the reimbursement system. Practices have determined that they need to see a certain number of patients in a given amount of time to break even or be profitable as a business. Regardless of the individual patient's needs, the practice may schedule an older or disabled patient for the same 15-minute appointment as any other patient, when, realistically, the older or disabled individual requires more time and attention.

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However, by using modern data analytics processes, medical practices could match appointment times with the specific needs of the patient, giving older patients or those with complex medical issues more time than patients with relatively straightforward and simple problems. The PCMH is often a prominent feature of the ACO because it aligns well with the goals and strategies of reduced cost through better, more coordinated care.

Integrated Delivery Systems

Although a detailed discussion of IDSs is beyond the scope of this text, a brief discussion is relevant to the physician practice because practices are often part of an IDS. Essentially, the IDS can be either a horizontally or a vertically integrated healthcare organization. Vertically integrated organizations, such as hospitals, increase their reach by adding similar service lines. Horizontally integrated organizations increase their reach by adding related but different service lines; for example, a hospital organization might add physician practices. IDSs are generally characterized as large organizations capable of providing a variety of services to their patients. An IDS may include any or all of the following services or entities:

- Hospital services
- Physician services
- Ambulatory care services
- Surgical centers
- Urgent care centers
- Nursing homes
- Palliative and hospice care facilities
- Home health care services
- Pharmacy services
- Telemedicine services
- Telehealth services

Some IDSs also include an insurance arm, thereby providing the financing of care as well as the provision of services. Although IDSs have similarities to ACOs, they are not the same model. In essence, all ACOs are likely IDSs, but not all IDSs are ACOs.

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Pros and Cons of Integration

All structural forms have pros and cons, and this maxim is true of integration. Some advantages of participation in an IDS are as follows:

- Economies of scale can be leveraged.
- Patient care decisions can be improved through the coordination of care across affiliated providers.
- Cost-effectiveness is more likely to be achieved.
- Patients may be better served with an increased scope of service.
- A larger financial base may afford a practice more access to capital.
- More specialty staff with greater expertise may be hired.
- Competition erodes, as little antitrust activity in healthcare has been seen in the past two or three decades.

Disadvantages of integration include the following:

- Friction among physicians may emerge because, as a function of their training, many tend to work better independently than they do as part of a team in large, integrated organizations (Groopman 2008).
- Decisions are made differently in larger integrated practices than members are typically accustomed to, requiring an adjustment for some providers.
- Seamless integration of information systems is needed and often difficult to achieve.
- Standardizing processes and workflows to reduce variation is often resisted by practice physicians and can be difficult to achieve.
- Changes in policies must be reconciled. This can be a difficult process, and it may be costly because government regulations may require enhancement of the benefits package of the acquiring organization to comply with nondiscrimination rules, such as pension and health benefits (IRS 2022).

Increased complexity is another issue that often arises as organizations increase in size and scope. By definition, medical care is complex, and it is often delivered on an individualized basis. This factor makes streamlining processes and organizational structures difficult, and streamlining also tends to reduce innovation because of environmental uncertainty.

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This uncertainty leads to unintended consequences, unpredictability, indecision, and a lack of clarity of goals (Star 2013).

Mergers and Acquisitions

Recent years have seen tremendous growth in the size and scope of medical practices, as noted earlier in this chapter. This growth is usually accomplished in one of two ways: through "organic growth," which constitutes additions to an existing practice by recruiting new members, or through mergers and acquisitions. A merger is a transaction that creates a new, single entity by combining two or more previously single organizations. An acquisition occurs when one organization purchases the **assets** of another entity. In the case of an acquisition, the acquiring organization usually remains intact.

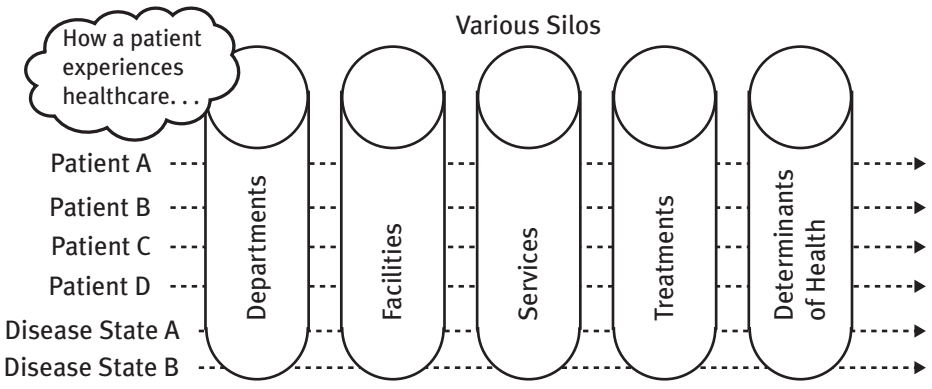
Asset
An item of value owned by a business. May be a physical property, such as a building; a physical object, such as a stock certificate; or a right, such as the right to use a patented process.

One danger that can arise from a merger or an acquisition is illustrated in exhibit 2.8: the creation of too many silos for patients to navigate. Healthcare professionals often see their work as a series of discrete activities, each under separate control. Patients and their families view healthcare activities differently; they see their encounter with the practice as a single event and part of an overall experience. When mergers or acquisitions take place, the practices involved need to fully integrate all parts of the new practice to avoid silos. Keeping the patient experience in mind helps practice leaders improve the functioning of their medical practices.

While drawbacks to mergers and acquisitions are evident, especially in terms of cultural issues, they allow a practice to grow quickly. Mergers and acquisitions may also allow a practice to acquire new services and prevent the duplication of services that can lead to oversupply and overutilization of services.

These activities require great care and expertise. As shown in exhibit 2.9, numerous details must be resolved to ensure a successful transition.

Exhibit 2.8
Rearranging How We Think About Care



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Exhibit 2.9
Merger Checklist

PREMERGER ASSESSMENT
- Review each practice's finances.
- Review employee payroll and benefits for each practice.
- Review coding practices.
- Review fee schedules.

NEW PRACTICE ENTITY
- Partnership or corporation?
- Professional association?
- Effective date of merged operations?

ASSETS THAT WILL BE CONTRIBUTED TO NEW ENTITY BY EACH PRACTICE
- Hard assets (will be leased from existing and new entities).

Accounts Receivable (A/R):
- What amount will be contributed?
- How will remainder of physician A/R be accounted for?

Inventory and Other Assets

NEW PRACTICE'S ASSUMPTION OF DEBT OF EACH PRACTICE
Review physician's existing debts:
- Accounts payable.
- Notes and other payables.
- Lease obligations.
- Defined benefit plan.

FORMULA FOR COMPENSATION OF THE DOCTORS (USUALLY BASED ON PREASSESSMENT)
- Physician collections and shared and allocated overhead.
- Fixed compensation plus bonus.
- Bonus based on percentage of collections.
- Bonus based on percentage of net production.
- Equal compensation for all physicians.
- Fixed compensation plus percentage of net production.
- Percentage of net production.
- Compensation formula for nonowner physicians.

OPERATIONAL ISSUES
- Call schedule.
- Billing/collection policies.

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Exhibit 2.9
Merger Checklist
(continued)

- Computer system (hardware and software to use).
- Appointment scheduling, including systems to schedule.
- Office forms.
- Medical charts.
- Superbill.
- Fee schedule.
- Notification of insurance carriers of new entity, if applicable.
- New group provider number.
- Banking (and banking contact).
  Insurance:
  - Group health, life, and disability.
  - Malpractice.
  - Office contents.
  - Other.
- Office hours, all locations.
- Telephone numbers, all locations.
- Purchasing function, establish controls and systems.
- Professional assistance.
- Choose practice's accountant.
- Choose practice's attorney.
- Establish and wire for computer networking.
- Other operational issues.

ASSESS HIDDEN COSTS TO MERGE

- Nonproductive time (lost patient billing).
- Marketing costs.
- Professional fees to merge.
- Moving costs, if applicable (schedule moving assistance).
- Malpractice tail premium.
- Cost to equalize fringe benefits.
- Cost to develop common operational policies.
- Possible facility costs.
- Buyout of existing leases.
- Additional leasehold improvements.
- Write-off of unproductive or abandoned assets.
- Other hidden costs.

PERSONNEL

- Determine practice's administrator and related employment contract.
- Review current compensation of employees and existing benefit plans.
- Decide which employees stay and which may have to leave.
- Write or update employee manual.

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Exhibit 2.9
Merger Checklist
(continued)

- Establish new fringe benefits.
- Establish job duties for each employee.
- Technicians to be assigned or pooled?
- Identify potential employee conflicts.
- Establish annual office and clinical personnel job assessment and evaluation program.

FACILITIES
Review current lease obligations of each practice:
  - Office leases.
  - Equipment leases.
- Determine if offices will consolidate into one location.
- Decide how specific equipment will be used in the practice.
- Review issues related to physician ownership of office building, if applicable.
- Establish lease formula for existing equipment and equipment to be acquired.

MANAGING PHYSICIAN
- Who will be managing physician? (or)
- Establish "office of managing physician."
  Decide on duties of managing physician vs. administrator:
  - Manage day-to-day operations.
  - Supervise employees.
  - Supervise billing/collection activities.
  - Ensure that all insurance as required by the group is paid and maintained.
  - Acquire fixed assets for less than $[dollar amount].
  - Authorize contracts on behalf of the group not in excess of $[dollar amount].
  - Maintain bank accounts.
  - Make sure all tax returns are prepared and filed on time.
  - Make sure all licenses are renewed.
  - Supervise payment of accounts payable.
  - Implement business decisions of the group practice.
  - Call to order regular meeting of the physicians.
  - Serve as liaison with community hospitals, referral networks, other medical practices.
  - Other duties.
- Will managing physician be compensated? If so, how much?
  How will managing physician be elected each year?
  - Vote of the physicians.
  - Annual rotation.

PRACTICE'S RETIREMENT PLAN
- Will there be a new plan? What features will it include?
- Decide what to do with current plan(s).

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Exhibit 2.9
Merger Checklist
(continued)

- Choose retirement plan administrator.
- Choose investment counselor.

NEW NAME OF THE GROUP PRACTICE

- Adopt name of one of the practices or decide on name of the new practice.

SPECIFIC PHYSICIAN CONTRACT ISSUES

Voluntary withdrawal by owner:

- Required notice [number of days or months].

Involuntary termination of an owner:

- Death.
- Owner's right to practice medicine in the state is suspended, revoked, or canceled.
- Owner loses privileges to any hospital at which the practice regularly maintains admission privileges.
- Owner fails to follow reasonable policies or directives established by the practice.
- Owner commits acts amounting to gross negligence or willful misconduct to the detriment of the practice or its patients.
- Owner is convicted of a crime.
- Owner breaches the terms of his or her employment agreement.
- Physician becomes uninsurable for medical malpractice coverage.
- Disability of an owner:
  - Owner becomes and remains disabled for [number] months (six months?).
  - Continued compensation to a disabled owner:
  - How long?
  - How much? (Based on a percentage of receivables collected over [number] months.)
  - Permanent vs. temporary disability.

Physician fringe benefits:

- Vacation.
- Sick leave.
- Effect on compensation if physician chooses to take extra time off for vacation, continuing medical education (CME) study, etc.
- Expenses (CME, etc.)—dollar allowance.
- Time off (regular afternoon) during week.

Malpractice tail-end premium:

- Who pays in event of owner's withdrawal?

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Exhibit 2.9
Merger Checklist
(continued)

BUYOUT OF AN OWNER

Address these events requiring a buyout:

- Death.
- Disability.
- Retirement.
- Withdrawal from the practice.

How will ownership interest be valued?

- Appraisal.
- Fixed formula.
- Deferred compensation (payout a percentage of patient receivables).
- Will a goodwill calculation be required?

Payout of ownership interest:

- Death:
  - Insurance proceeds.
  - How much insurance to obtain.
  - Proper structure for "key man" insurance.
- Disability, retirement, withdrawal:
  - Installment payments or lump sum.
  - Interest rate for installment payments.
  - When will installment payments begin?

Admission of a new owner:

- Required vote.
- Required net production dollar volume.
  How to value buy-in amount:
  - Appraisal.
  - Fixed formula.
- Installment payments, interest rate.

DISSOLUTION OF THE GROUP PRACTICE

- Required vote of the current owners.
- Method of dissolution.

MAJOR DECISIONS BY THE GROUP

- Majority or unanimous approval?
- Hiring and firing of personnel.
- Amending practice fee schedule.

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Exhibit 2.9
Merger Checklist
(continued)

- Purchase of fixed assets in excess of $[dollar amount].
- Adopting or amending retirement plan.
- Any expenditure in excess of $[dollar amount].
- Designating or changing signatories on group bank accounts.
- Borrowing money.
- Entering into lease contracts.
- Offering ownership to a physician (probation or trial period).
- Terminating a physician's ownership.
- Withdrawals from group bank accounts.
- Negotiating and settling claims against the group practice.
- Determining which expenses of the individual physicians should be paid for by the group practice.
- Dissolution of the group practice.
- Purchase of insurance.
- Sale of group practice assets.
- Time intervals to reevaluate owner physician compensation formula; management group assignments; nonowner physician compensation formula.
- Other.

PROMOTION OF THE NEW GROUP PRACTICE

- Develop marketing strategy.
- Budget costs for marketing implementation.

The "Great Double Cross"

Psychologist and author Wayne Sotile discusses one of the most compelling issues weighing on the minds of medical group practice members: the "great double cross." Sotile asserts that physicians have always enjoyed the admiration of society and the promise of a comfortable living in return for providing care to patients—and that status is changing. Now, perpetual reductions in reimbursement are leading to ever-declining financial rewards, and lawsuits and increasing scrutiny of physicians' practice of medicine have eroded the esteem that many physicians feel. In addition, physicians are required to devote more time than in the past to charting in the EHR and performing other duties besides patient care, further separating patients from physicians. The result has been a continued decrease in satisfaction with the practice of medicine (Sotile and Sotile 2002). One important function of a practice's governance structure is to help restore and maintain practice satisfaction and address issues of burnout (see chapter 8). In addition, practice leaders must deal with a host of other issues in today's healthcare environment, including the following:

- Decisions about the ownership structure
- New providers and their contractual relationship with the practice

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- Practice relationships with outside entities
- Duties and contributions of the practice manager
- Physician involvement in practice management
- Provider relations
- Emerging models of healthcare delivery

Part of the practice leader's job is to manage the important relationships among physician practice stakeholders. We return to these and other issues in the chapters ahead.

The Changing Landscape of Physician Practice in the COVID-19 Era

The COVID-19 pandemic has had a significant impact on the practice of medicine and on healthcare delivery in general. Although the pandemic is not the only factor driving change in the practice of medicine, its effect has been unprecedented in accelerating changes in medical practice models. These changes include the decline of independent physician-owned practices, the increasing adoption of telemedicine, and the emergence of new models of medical practice and practice ownership.

Decline of Independent Practices

Many independent medical practices have struggled to remain viable. Some have been forced to merge with larger organizations, while others have closed their doors altogether. While independent practices still exist, they are becoming increasingly rare in the current healthcare landscape. The COVID-19 pandemic accelerated the decline of independent physician-owned practices. There are several reasons for this decline, including the following:

- *Increased regulatory burden*—Independent practices must comply with an increasing number of regulatory requirements. Compliance is time-consuming and costly, particularly for smaller practices.
- *Financial pressures*—Independent practices often face financial constraints as a result of declining reimbursement rates from insurers, increased competition from larger healthcare organizations, and rising costs for supplies, equipment, and staff. Supply chain disruptions, supply shortages, and inflationary pressures have also increased costs.

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- *Staff burnout*—The pandemic exacerbated the long-standing issue of burnout among medical personnel. The prevalence of burnout among US physicians jumped to 62.8 percent in 2021, compared with 38.2 percent in 2020. One in five physicians said that they intend to leave their current practice within two years (Sinsky et al. 2021).
- *Technology costs*—Healthcare technology is becoming increasingly complex and expensive, with electronic medical records and other systems requiring significant investments in hardware, software, and personnel.
- *Changing demographics*—As the population ages and healthcare needs become more complex, there is a growing demand for specialized care that may be difficult for independent practices to provide.
- *Changing preferences of new physicians*—Many younger physicians are less interested managing the business side of medical practice and less willing to take the risk of business ownership (AHA 2020).
- *Hospital consolidation*—Many hospitals have acquired physician practices in recent years, either through acquisition or through joint ventures. This trend has led to fewer independent practices and increased consolidation in the healthcare industry (Weinberg 2022).

Use of Telemedicine

The need to isolate to prevent the spread of COVID-19 hastened the adoption of video and online services such as virtual visits. Virtual services not only helped protect the health of providers and the patients from the spread of infection during the pandemic, but also introduced a convenient and a satisfactory mode of service, particularly for initial evaluations. Physicians also used these services to provide in-hospital consultations to avoid the need for face-to-face contact (ASPR TRACIE 2021; Cypress 2022; Gans 2022).

The pandemic created financial strain on smaller practices that did not wish to invest in new technology or were unable to do so. This places even more pressure on practices to consolidate (Amato 2021; Gans 2022).

Emerging Models of Medical Practice

In recent years, new models of medical practice and practice ownership have emerged. Four investor types are involved in medical practices:

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- *Private equity*. Private equity establishes relationships with medical practices that have potential for growth. Investors typically provide capital for expansion infrastructure investment and management expertise. Because of corporate practice statutes, investors usually hold a minority stake in the practice for a negotiated return on their investment. Clinical operations are typically left to the discretion of the physicians, but this approach to practice raises concerns that there may be too much nonclinical control over the practice of medicine and too much emphasis on profitablity (Robeznieks 2022).
- *Venture capitalists*. These entities are often interested in innovation and seek out practices with the ability to develop new models of care delivery, such as telehealth and technologically enabled practice models. Their focus is on providing more flexible patient access and physician working environments.
- *Health plans*. To achieve better healthcare management and utilization of resources, health plans are shifting more to vertically integrated systems that include providers. This may also be a way to expand care locations.
- *Large employers*. Employers may contract directly with providers to offer more efficient access to care for their employees. Large employers are particularly interested in digitally enhanced virtual care (AHA 2020).

Other examples of emerging medical practice models include nontraditional ownership models that offer primary care services, such as Amazon Clinic, One Medical (Amazon 2023), Humana's Centerwell Senior Clinic (Humana 2022), Community Clinic at Walgreens (Walgreens Corporation 2023), and CVS MinuteClinics (CVS 2023). These new forms of practice compete directly with traditional primary care practices, promising lower cost, easier access, and greater convenience. They provide a more consumer-oriented retail model of healthcare in which prices are provided up front and a limited selection of common services are provided, with an emphasis on convenience (Arora et al. 2017). In March 2023, Atrium Health in Charlotte, North Carolina, announced a partnership with Best Buy to provide certain hospital services to patients in their homes. The partnership is designed to "enhance the patient experience, tapping into specially trained Geek Squad agents to provide and set up in-home, wearable technology that allows a patient's vital signs to be monitored remotely by an Atrium Health care team around the clock" (Atrium Health 2023).

Between 2020 and 2021, the number of physicians employed by hospitals and corporate entities increased by 48,400, to a total of 423,800. The second half of 2020 alone saw a 3.4 percent increase in the growth rate of hospital- and corporate-employed

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physicians (IQVIA 2022). This accelerated growth rate appears to have been driven by the COVID-19 pandemic. By the beginning of 2021, 69.3 percent of physicians were employed by corporations or hospitals; the Midwest had the highest share at 76.9 percent (IQVIA 2022).

For-profit ownership of medical practices (as opposed to not-for-profit ownership) is not inherently good or bad. Both for-profit and not-for-profit organizations may engage in predatory behavior (Robeznieks 2022). However, it is critical that ethical frameworks are built into all these arrangements to reduce conflict between investors and providers to ensure the proper care of patients (Hsieh 2022).

Discussion Questions

1. What is the purpose of the mission, vision, and values of the medical practice?
2. Who are some of the stakeholders of the medical practice?
3. What are some of the operational, internal, and external functions of the practice?
4. What are the components of organizational culture that affect the medical practice?
5. Describe some of the key organizational forms that include medical practices.
6. Describe and discuss some of the emerging models of medical practice organizations.

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CHAPTER 3

INFORMATION TECHNOLOGY AND MANAGEMENT

Knowledge is power.

—Iman Ali Talib

Learning Objectives

- Assess the information technology needs of the medical practice.
- Consider the challenges of applying information technology in the medical practice.
- Recognize when to seek outside help on information technology issues.
- Articulate meaningful use and other regulatory requirements.
- Understand the benefits and risks of cloud computing for the medical practice.
- Understand the challenges surrounding data privacy and security and the steps that the medical practice can take to prevent data breaches.

Introduction

We have all experienced the advantages of the digital world. It influences how we listen to music, how we pay our bills, how we conduct commerce, and how we learn and collect

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information. The information technology (IT) system is the backbone of the modern medical practice, and it is essential to supporting its operations and clinical functions. Virtually every aspect of the practice is potentially enhanced by the use of IT. Knowledge and information are power, and that power allows the practice to serve its patients as well as the community in a more precise and effective way than it could without IT capabilities.

Information technology in medical practices varies widely, from simple practice management systems to sophisticated longitudinal healthcare enterprise information systems, which may integrate a number of entities and functions (Nelson and Staggers 2018). Some electronic systems serve as health information exchanges (HIEs), which connect organizations in a region or healthcare system (discussed in depth later in this chapter).

For our purposes, the terms *digital* and *electronic* are used interchangeably, as are *information technology* and *electronic records*. Exhibit 3.1 illustrates the purpose and characteristics of an electronic system in the medical practice. Notice that the modern system is intended to service multiple stakeholders, so its design must be usable for a variety of purposes to enhance all stakeholders' performance. A system that does not fulfill these expectations will not be used, a situation that has plagued the digital transformation of medical practices.

Performance

One of the biggest barriers to the acceptance of IT systems in medical practices is the performance of the system. How reliable is the system? How much of the time is it up and running? Unreliable systems encourage practices to maintain parallel paper systems

Exhibit 3.1
What IT Systems Should Do

For whom?	Patients Providers Support staff
For what purpose?	Patient care Documentation Research Picture archiving and capture Other ancillaries Communication Decision support
What characteristics should they have?	Usable Specific Secure Smooth flow Implementable Scalable

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"just in case," which is ultimately a waste of time and resources and should be avoided by implementing the most reliable IT systems available.

A related issue is whether use of the system adds steps to a process previously performed manually. The practice needs to determine whether these additional steps are worth the value added by the system. Additional tasks can increase the time needed to perform the functions of the practice and may increase employee frustration and reduce acceptance of the IT system if they do not add clear value.

To paraphrase a theme from the 1951 movie *The Day the Earth Stood Still*, it is easy to be impressed by technology. The practice manager and governing body need to analyze the performance of the IT systems with great care and attention before making purchasing decisions. The focus should be on bringing value to the practice and its patients, which, in turn, depends on the selection and proper implementation of the right system for the practice (Cryts 2016).

Interface

Simply put, the IT user interface is how individuals interact with the information technology systems. It is the connection between the human beings and the technology, and it is critical to the successful implementation of any information system.

The easier the IT system is to use, the more likely it is that it will be accepted by the stakeholders. Providers often complain that the old paper way was faster. What this sentiment does not take into account is that more people than just the provider were involved in completing the old process, and the total effort expended may have been greater than the provider realized. With that said, protecting and supporting the productive capacity of clinicians is essential because they are the primary factor limiting the productivity of any medical practice.

The interface with other systems inside and outside the practice is an important consideration as well. Interoperability—or the ability to communicate with the other systems—is a critical element. Does the practice intend to connect with hospital systems, payer systems, regional health information networks, or other vendors and service providers? The answer to this question greatly influences the practice's choice of IT system.

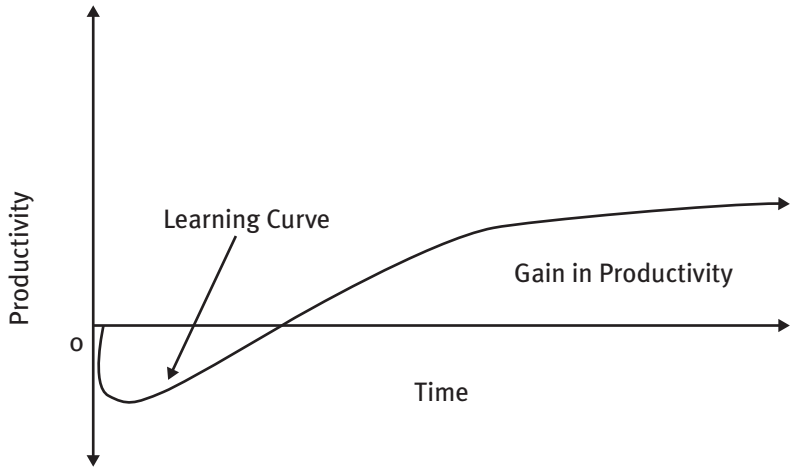
Education and Training

Education and training are essential to the proper implementation and use of the IT system; however, the value of these activities is often underappreciated by medical practices. As a result, inadequate resources are devoted to properly educating all members of the practice on the use of the system. This lack of training leads to frustration and, of course, the inefficient implementation of the IT system.

A carefully devised plan for the education and training of practice members is essential to the successful implementation of any IT system. Developing such a plan is often

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Exhibit 3.2
The IT Learning Curve



difficult, however, because devoting time to education and training takes time away from clinical activities. As illustrated in exhibit 3.2, the initial loss of productivity that inevitably occurs when new systems are implemented may be regained, and productivity improved, as the use of the system becomes routine.

Protecting physicians' time has always been an important issue for the medical practice. Although no concrete evidence has emerged to indicate that electronic health records (EHRs) improve clinical productivity, they are essential to the administrative and operational side of the practice. An EHR is a digital version of the patient's clinical record and medical history that is created in real time. One way to maximize physicians' time and improve their productivity is to employ scribes. Scribes are individuals who help collect information for the physician by attending patient visits and taking notes from the history and physical and any other discussion that takes place. They then enter the data into the patient's electronic record, eliminating that step for the physician. The scribe has become a familiar member of the care team.

Health Insurance Portability and Accountability Act (HIPAA)
Legislation covering many aspects of patient privacy and the sharing of private health information.

Meaningful Use

The Health Information Technology for Economic and Clinical Health (HITECH) Act was passed by Congress as part of the American Recovery and Reinvestment Act of 2009. The HITECH Act provides significant provisions for medical practices intended to encourage more rapid adoption of electronic health information systems. It also includes provisions to enhance enforcement of the **Health Insurance Portability and Accountability Act (HIPAA)** of 1996 and requires practices to engage in the meaningful use of electronic health information systems in a series of three stages (HHS 2018).

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The term *meaningful use* refers to the IT capabilities that practices adopt for providing care and engaging patients. The three stages of meaningful use are as follows (HealthIT.gov 2019):

1. Patient access
2. Patient–provider messaging; educational resources; and information gathering, such as the ability to upload data from home monitoring devices
3. Self-management tools and electronic reporting on the patient care experience

As can be seen in exhibit 3.3, stage 1 begins the electronic records implementation effort with a focus on capturing and sharing data. Stage 2 focuses on establishing criteria for advanced clinical processes, and stage 3 looks at improving outcomes. Stage 3 is of particular significance because it requires the meaningful interaction of patients and providers using electronic means and encourages the practice to focus on improving the population's health.

Exhibit 3.3 Meaningful Use Criteria

Stage 1: Focus on Data Capture and Sharing	Stage 2: Focus on Advanced Clinical Processes	Stage 3: Focus on Improved Outcomes
Electronically capturing health information in a standardized format	More rigorous health information exchange	Improving quality, safety, and efficiency, leading to improved health outcomes
Using that information to track key clinical conditions	Increased requirements for e-prescribing and incorporating lab results	Decision support for national high-priority conditions
Communicating that information for care coordination processes	Electronic transmission of patient care summaries across multiple settings	Patient access to self-management tools
Initiating the reporting of clinical quality measures and public health information	More patient-controlled data	Access to comprehensive patient data through patient-centered HIE
Using information to engage patients and their families in their care		Improving population health
Timeline: 2011–2012	Timeline: 2014	Timeline: 2016

Source: Adapted from HealthIT.gov (2019).

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Starting in 2018, all eligible physicians were required to participate in stage 3 and further requirements for providers to attest to their state's Medicaid Promoting Interoperability (PI) Programs. These programs continue a commitment to promoting and prioritizing interoperability and exchange of healthcare data. The Centers for Medicare & Medicaid Services (CMS) renamed the EHR Incentive Programs the Medicare and Medicaid Promoting Interoperability Programs in April 2018 (AMA n.d.). This change moved the programs beyond the existing requirements of meaningful use to a new phase of EHR measurement focused on interoperability and improving patient access to health information (CMS 2023). Because these rules change frequently, the reader is advised to visit the CMS website (www.cms.gov) on a regular basis for the latest information.

The HITECH Act has indeed provided the needed impetus for accelerating the use of electronic health information systems in medical practices and moving practices from stand-alone IT systems to fully integrated systems, as shown in exhibit 3.4.

A general mental model of the information management process is illustrated in exhibit 3.5 in terms of the policies, processes, and goals of the organization. It shows the

Exhibit 3.4
Continuum of IT System Integration

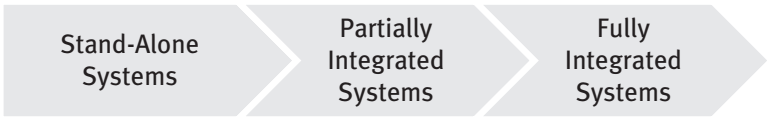
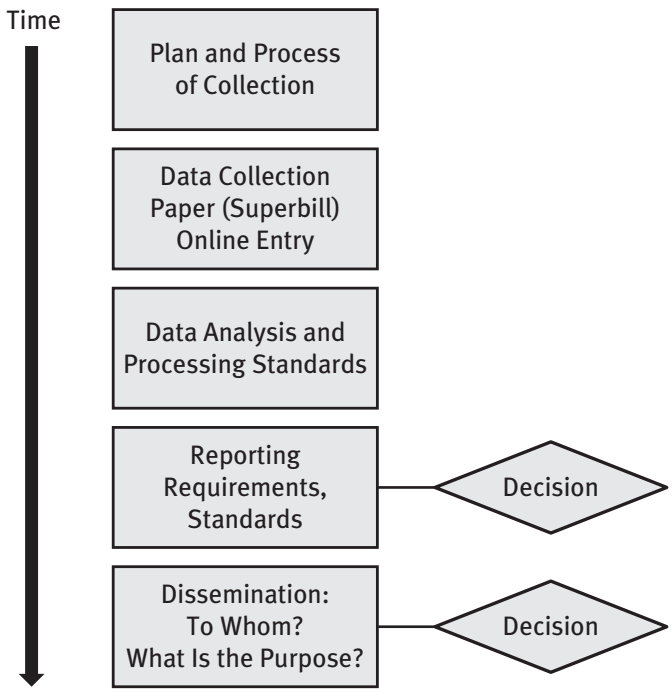


Exhibit 3.5
Data Collection, Processing, and Reporting



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continuum of information to knowledge as data are collected and processed to create a knowledge base that can be used for decision-making and operations.

As with all government requirements and regulations, it is incumbent on the practice administrator and leadership to be vigilant in keeping up with changes to regulations. Often, rules are relaxed or timelines revised; therefore, knowledge of the original legislation or rulemaking is not enough.

Practice Management Systems

An important part of the overall IT system for medical practices is the practice management system. A practice management system performs the following functions (AMA 2023):

- Capture patient demographics
- Schedule appointments
- Preregister patients for upcoming procedures (including insurance eligibility and benefits confirmation)
- Determine the patient's financial responsibility to facilitate payment collection at the point of care
- Maintain lists of insurance payers
- Perform billing tasks
- Generate administrative reports

Practice management systems can also aggregate large data sets over time, which allows the practice to take a broad view of important management and healthcare issues. This process is difficult, if not impossible, using paper record systems.

Because data management is an important component of effective medical practice operations, practice managers require some knowledge about what it is, when it is used, and for what purpose it is used. Data management is a vast field, and a thorough understanding of it may be beyond the scope of most practice management generalists. Suffice it to say that data management focuses on ensuring that the practice properly maintains and makes available the data needed to operate the practice effectively and efficiently. It is a database management function, sometimes referred to as a data warehouse, that allows the practice to store vital information in an interactive and retrievable format, thus facilitating the creation of custom reports.

Some important functions of data management include the following:

- *Decision support*—This function assists practices in making a business case for actions. For example, a multispecialty practice may consult a report generated

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Dashboard
Similar to a car's dashboard, provides a medical practice with integrated and consistently presented operational data for decision-making.

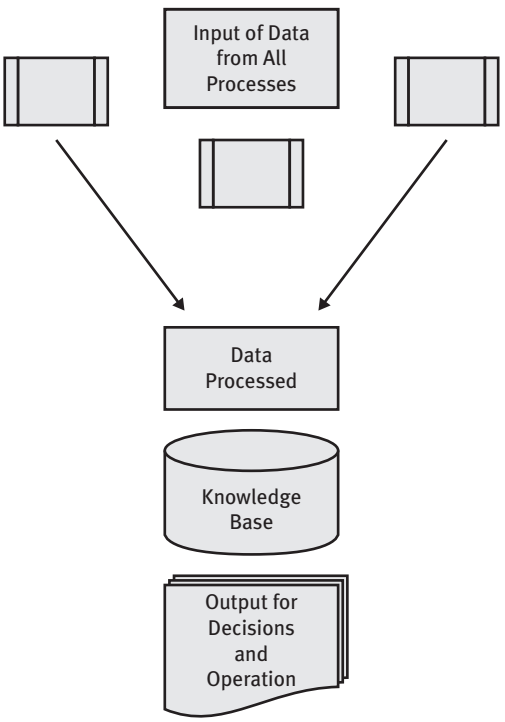
Analytical
A decision-making style in which the decision maker gives careful consideration to the uniqueness of situations. This style is typically used when tolerance for ambiguity is high and decision makers are rational in their thinking.

by the data management system to determine whether to hire a geriatrician on the basis of the number of patients older than age 65 seen in the practice. Similarly, a practice manager may notice a trend in the data showing the increased ordering of a particular procedure and decide to purchase a new piece of equipment to accommodate the increase in demand.

- *Business intelligence*—This attribute of data management takes the data available in the practice from its information and data systems and converts it into information that can be used to develop strategic plans or provide better service to patients. For example, a practice may identify an opportunity to open a new practice satellite office based on the zip codes of its patient base.
- *Creation of metrics for improvement and **dashboards** for tracking progress*—By analyzing the raw data of the practice, data management tools can compile a relevant set of metrics and create dashboards that help practice leaders evaluate the performance of the practice.

Modern practice management systems should include **analytical** tools that assist with these and other processes. Exhibit 3.6 illustrates a typical data collection, processing, and

EXHIBIT 3.6
Information Management Model



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reporting structure. In developing these systems, practices must consider how the system will function and what it is expected to produce before making a purchase.

Other Important Systems in the Medical Practice

Some additional electronic systems in the medical practice that perform IT and management functions are the following:

- Medical records
- Laboratory testing and results
- Imaging, sometimes referred to as picture archiving and communication systems
- Human resources
- Accounting
- Financial management

One could argue that the patient medical record is the most valuable and important document in the medical practice. With that in mind, we focus on describing the medical records system in this section.

Medical Records

The maintenance and safekeeping of a patient's medical record is the principal function of the medical records unit. The records document what activities were undertaken, by whom, how they were done, why they were necessary or appropriate, and where they were performed. In addition, medical records capture a plan for future care.

Most medical practice records contain the following information:

- Physician notes, including a treatment plan and treatments provided
- Operative notes related to surgical procedures
- Laboratory test orders and results
- Imaging test orders and results
- Documentation of any **ancillary services** provided or indicated, such as laboratory or audiology services
- Communications from other providers in the form of letters, copies of records, and so on

Ancillary services
A range of services provided to support the work of a primary care physician, classified into three categories: diagnostic, therapeutic, and custodial.

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- Patient's hospital records, such as discharge summaries, operative notes, and copies of test results from the hospital
- Consultative reports, which describe the background, evaluation, and plan for the care of the patient
- Any treatment plans other than those documented in the physician notes, including goals to be achieved (e.g., a rehabilitation plan)
- Patient's demographic information
- Patient's insurance or health plan information
- Patient's upcoming appointments with the practice or related appointments other providers
- Past and current diagnoses
- Patient's allergies
- Patient's medication list
- Physician orders
- Patient's home health or hospice care information
- Follow-up indicated for the patient
- Nurse's notes
- Patient's self-care status
- Patient's disabilities and impairments
- Patient's equipment requirements
- Patient's nutrition details
- Therapist notes
- Social service agency notes

Patient Records Completed Through Clinical Content Integration

One of the great challenges of medical records management is completeness, because patient records come from so many sources. Practices should consider opportunities to join local, regional, and national HIEs to gain access to more complete and accurate information from other participating practices, thereby helping to ensure that patients receive high-quality service and care.

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HIEs are just one part of the movement toward increasing the completeness of patient records through clinical content integration. Healthcare systems are integrating practices that are not owned but are affiliated, providing them access to critical patient clinical information.

The term *health information exchange* refers to an organization of reliable and interoperable electronic health-related information sharing conducted in a manner that protects the confidentiality, privacy, and security of the information. Currently, regional health information organizations (RHIOs) are the most common form of HIE organization. A RHIO governs the exchange of health information between so-called healthcare stakeholders within a defined geographic area. The goal of this exchange is to improve healthcare for people in the community (Jones and Groom 2017).

RHIOs typically include a range of participating healthcare provider entities, as well as other health stakeholders, such as payers, laboratories, and public health departments. They are often managed by a board of directors composed of representatives from each participating organization. For a RHIO to be established, stakeholders in the proposed RHIO must reach consensus on what information can be shared among the participating entities. In addition, prior to exchanging information, the entities need to sign data use agreements. Because the capacity to effectively store and manage clinical data electronically is a prerequisite for participating in an HIE, RHIOs often offer programs to assist affiliated providers with health IT adoption at the institutional level (AHRQ 2023b).

These exchanges employ nationally recognized standards for interoperability and security (HealthIT.gov 2020, 2023b). Medical practices that participate in these exchanges have wider access to patient data and population health information.

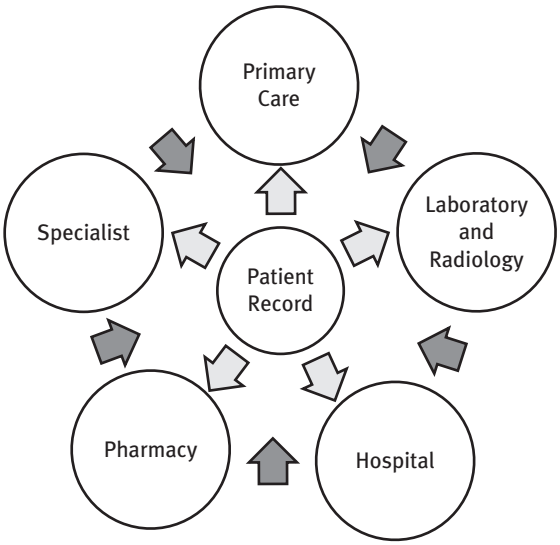
Population health management is a healthcare approach that focuses on improving healthcare outcomes for an entire group or population. The concept of population health takes a broad view of patient care by emphasizing the engagement of physicians, other providers, and the patient. The idea is not to reduce the quality of care for the individual but rather to broaden the scope of care to consider the larger group as well as the individual.

Data are essential for population health management, as they inform the medical practice about the health status of the community. If a practice does not understand the health status of its patient population, it will not know whether its health improvement efforts are working. Take, for example, the A1c levels of a group of diabetic patients. The A1c level is a measure of how well the patient's diabetes is controlled. To measure the effectiveness of a care strategy for diabetic patients, the practice must be able to compile an aggregate measure of the A1c level for the entire group of patients under its care or in the population.

HIEs allow a medical practice to integrate patient information from multiple provider sources, as illustrated in exhibit 3.7.

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Exhibit 3.7
Health Information Exchange



The Wisconsin Health Information Exchange, known as WISHIN (www.wishin.org), provides a good example of how an HIE can be organized and work for the benefit of medical practices and their patients. This exchange connects more than 1,000 providers. In addition to health data sharing, it offers a platform for practices to conduct research and focus on health issues that are of particular interest to the region.

The Patient Flow Process and IT's Role

The effective practice carefully considers process flow issues. Many processes can be improved using digital technology. Consider the example in exhibit 3.8, which illustrates a simple process flowchart for a patient visit. Each of these processes can be enhanced with digital technology, and each step may provide opportunities for improvement, as discussed in chapter 10. In this case, reminders, decision points, and standardization of procedures are enhanced with the digital technology.

The Need to Standardize Processes in a Practice

As illustrated by the flowchart in exhibit 3.8, applying digital technology to procedures requires careful attention to process standardization for each activity to function effectively. This requirement has been a barrier to technology adoption by the healthcare industry because it can only be effective if the practice standardizes its processes. That standardization

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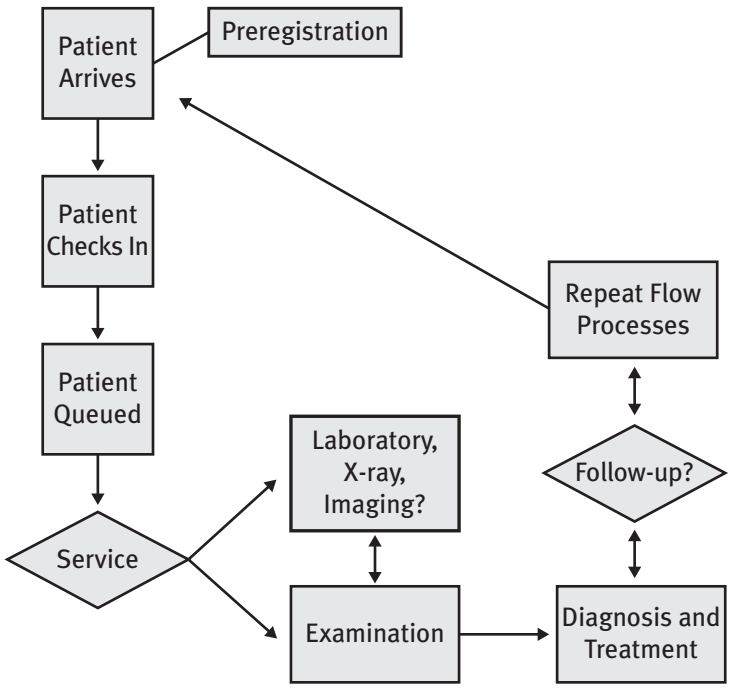


Exhibit 3.8
Patient Flow Process

involves a learning curve that, in the short run, will reduce the efficiency of the operation and therefore its productivity. Practices often find this side effect untenable and are unwilling to invest the time and financial resources needed to make the conversion. However, the short-term disadvantages of adoption are often outweighed by the long-term gains. Exhibit 3.2 earlier in the chapter illustrates this phenomenon.

Interoperability

Interoperability, as defined by the Healthcare Information and Management Systems Society (HIMSS 2023), refers to "the ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities." There are three levels of health information technology interoperability: foundational, structural, and semantic (HIMSS 2023):

1. *Foundational* interoperability means that data exchange can occur between one information technology system and another without data interpretation. Although this is an oversimplification, *data interpretation* is a term that describes the conversion of data from one computer language to another.

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2. *Structural* interoperability is a type of data exchange that allows the movement of healthcare data from one system to another, such that the clinical or operational purpose and meaning of the data are preserved and unaltered. It ensures that data exchanges between IT systems can be interpreted at the data field level. This is known as *syntax*.
3. *Semantic* interoperability is the ability of two or more systems to exchange information in a usable way. This level of interoperability supports the electronic exchange of patient summary information among caregivers and other authorized parties through potentially disparate EHR systems and other systems to improve the quality, safety, efficiency, and efficacy of healthcare delivery.

Initially, most of the IT systems in medical practices were stand-alone systems with little integration. For example, practices used separate systems for laboratory activities, radiology functions, patient records, and administrative processes through the practice management system. These systems were often created by different vendors using different computer languages, protocols, and procedures, resulting in a lack of interoperability. That made it virtually impossible, or very expensive at best, for the systems to talk to one another. This lack of interoperability reduced the effectiveness of EHRs and therefore practices' satisfaction with these products. Modern systems tend to use common computer languages and standardized interfaces, allowing for greater interoperability.

System Integration

More than ever before, practices are integrating their IT systems into larger networks of providers and organizations.

In primary care, examples of health IT integration include the following (AHRQ 2023a):

- Clinical decision support
- Computerized disease registries
- Computerized provider order entry
- Consumer health IT applications
- Electronic medical record systems
- Electronic prescribing
- Telehealth

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Integration increases patient access to their own records and gives providers the opportunity to coordinate care and increase safety and efficiency (AIMS Education 2019; van der Nat, Derks, and van Veghel 2022).

Promoting Interoperability

Interoperability between practice management systems and electronic medical records is crucial for seamless data sharing and improved care coordination. Achieving interoperability between these two types of systems has been challenging, although recent developments are helping to improve their integration.

The most important development is the widespread adoption of the Fast Healthcare Interoperability Resources (FHIR) standard, which was adopted in May 2012 (HealthIT.gov 2023a). This standard was designed to facilitate data exchange among healthcare systems, including practice management systems and EHRs. FHIR has gained traction in recent years, and many EHRs and practice management systems now support FHIR-based data exchange. This allows for the exchange of data such as patient demographics, diagnoses, procedures, and medications (Braunstein 2018).

Another development is the use of application programming interfaces (APIs) to enable data sharing between practice management systems and EMRs. APIs provide a standardized way for systems to exchange data. Many EMR vendors and healthcare technology companies are building APIs to facilitate data exchange between their systems and those of other healthcare systems (ONC n.d.).

The Office of the National Coordinator for Health Information Technology has implemented policies aimed at promoting interoperability between healthcare systems, including practice management systems and EHRs. For example, the 21st Century Cures Act, passed by Congress in 2016, requires healthcare providers to use open, standardized APIs to enable patient access to their health data (HealthIT.gov 2023c, 2023d).

Value-Based Care and IT

A modern IT system is essential if a practice wishes to participate in value-based care (CMS 2022). The ability to provide value-based care depends on a practice having contemporaneous (real-time) data for its patient base documenting the care provided, the outcomes achieved, and the costs incurred from practice operations. This level of data acquisition simply is not realistic with a manual system; capturing data manually is difficult, inaccurate, time-consuming, and costly (Sutherland and Levesque 2020; van der Nat, Derks, and van Veghel 2022).

Population Health

For most of the US healthcare system's history, the provision of care has focused on the individual patient. Although this aim is clearly an important and necessary goal, it is

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insufficient in today's healthcare environment. Providing high-quality care to individual patients must be accompanied by a focus on the care of an entire population of patients. Population health management is an example of the "second curve" of healthcare (HRET 2013; see chapter 1).

Population health management is a process in which patient data are collected from multiple sources, compiled into patient records, and accessed by providers to understand their population's health status. Metrics are such an important aspect of population health management that practices may be putting their business at risk in terms of reimbursement if they ignore value-based measures. A practice that cannot measure the outcomes it seeks to achieve will not be able to measure the improvements that its innovations are creating. In short, having well-developed IT systems in place is essential to effective population health management.

Practical Aspects of Medical Practice Information Systems

This section covers several practical issues surrounding IT in medical practices, including system selection, installation failure, cloud computing, governance, and privacy and security.

Selecting a System for the Practice

When considering electronic systems for the medical practice, whether purchasing cloud services (discussed later in this section) or hosting servers on-site at the practice, practice leadership must address the following questions to ensure successful implementation:

- *How usable is the system?* A major complaint of clinicians about electronic systems is that they are not user-friendly or intuitive, and therefore they are disruptive to workflow. The practice leader must be sure to ascertain the system's ability to adapt to the unique needs of the users.
- *Can the system be customized to the practice?* The system's capabilities should closely match the needs and expectations of the practice, and the system should fit seamlessly into the practice structure. Achieving such compatibility may require the development of special templates for different specialties by a consultant or vendor.
- *Is the system's operation compatible with the natural workflow of the practice?* Disruption of workflow can be a major impediment to implementation and may decrease practice efficiency if attention is not paid to this detail early on.
- *Is the system easily deployable?* System launch requires careful planning to be sure that the system can be integrated into the practice with minimal disruption to its operations. Another important consideration is the amount

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of training needed for staff to properly use the system. Most medical practices are busy environments, and large blocks of time to devote to training can be difficult to schedule.

- *Is the system scalable?* In other words, can it grow and adapt with the practice to keep up with the demands of an increasing workload? Determining scalability at the beginning of the selection process helps prevent the need to find new systems in the future as a practice grows.

Steps in the System Selection Process

The selection of an IT system for the medical practice demands a disciplined project management approach. Exhibit 3.9 illustrates the constrained relationships among scope, time, cost, and quality that typically develop when any project is undertaken. All projects require optimization of their scope, the time required to complete them, and the quality (value or cost could be substituted here) of the desired outcome. As the scope of the project increases, cost will increase or quality will be reduced, and it will take longer to implement. Similarly, as the scope decreases, cost will be reduced or quality will increase, and the time to implement may decrease. These rules may be simple, but they are critical to consider in the planning of a project such as information systems implementation. Many IT projects undertaken in medical practices fail because practice leaders do not account for the relationships among scope, quality, cost, and time to implement. For example, medical practices often fall victim to the fierce urgency of now and rush to complete a project, risking the long-range goals of the project.

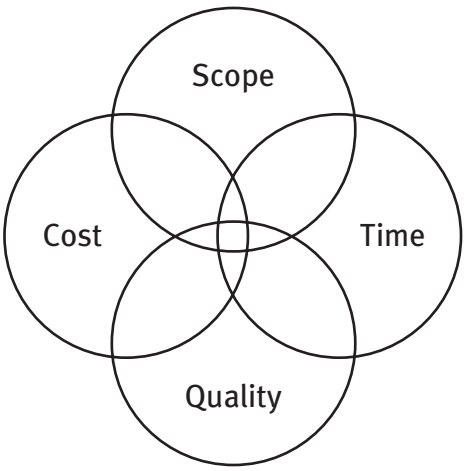


Exhibit 3.9
The Constrained Relationship in Project Management

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The system selection process, whether for a practice management system, an EHR, or another IT system, requires the completion of several important steps.

Step 1. Consider the need for outside independent expertise. IT is a rapidly changing field and requires a level of expertise that may not be available in the practice. The leadership should consider obtaining outside independent expertise before undertaking a major selection process for an IT product. Independence is critical to prevent conflicts of interest that may be present if the outside expert is affiliated with the vendor of the IT system being implemented.

Step 2. Conduct a needs assessment. This step should involve members from every department and service area of the practice. Focus on the outcomes desired and the problems the practice is attempting to address by implementing an IT solution.

Step 3. Develop a list of must-have criteria. Be sure the practice has a way to measure the success of the project prior to system selection; developing a list of criteria will help make that a reality.

Step 4. Find appropriate comparables. Medical practices vary widely in the services they offer, their size, and many other characteristics. Seek advice from similar practices to help establish criteria that may be useful in the selection process. This step offers the practice manager and other leaders an opportunity to discuss the project with individuals in similar circumstances who have previously gone through the process.

Step 5. Develop a list of potential vendors. Checking with industry contacts, leaders at the comparable practices, and professional organizations may be useful for creating this list. Consider attending information system trade shows as an effective way to gain firsthand knowledge of the marketplace.

Step 6. Develop a request for proposal (RFP). The RFP helps standardize the responses from the vendors, making comparisons straightforward. In addition, requesting specific information contained in the RFP will ensure that the vendors respond to the needs of the practice and that the must-haves are being addressed.

Step 7. List the top vendors who seem to offer the best solutions for the practice.

Step 8. Interview each vendor on the list of top candidates. This step provides practice leadership the opportunity to receive clarification on any questions that arise from responses on the RFP and can offer a sense about the vendor's reliability and expertise.

Step 9. Negotiate a contract with the vendor of choice. This contract should pay careful attention to the scope of the project, including the following elements:

- Specific features that are included in the products and services to be provided

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- The price to be paid and the terms of payment
- The timeline for delivery of the agreed-on products and services
- Any penalties for failure to deliver as scheduled
- Guarantees and other warranties for the products and services
- Any future promise of services and support

Information system contracts should be as specific as possible to prevent misunderstandings related to the installation of the system and any follow-up service. IT projects in medical practices are notorious for going over budget, falling behind schedule, and generally being frustrating to execute.

Step 10. Prepare for implementation. This is a critical step in the process because time must be set aside for training staff and testing the system. Alternative operating scenarios will need to be used during the implementation process. Preparation for implementation also includes thorough discussions with all members and stakeholders in the practice to be sure they understand the implications of the implementation process. IT projects tend to be very disruptive, so a comprehensive, understandable, and convincing presentation about the nature of the implementation and potential consequences is essential.

Step 11. Implement the new system. Following the plan that has been constructed for implementation is a key to success in this step, as is frequent communications with all stakeholders as implementation proceeds.

Step 12. Reflect on the project. Projects rarely go completely according to plan, and important lessons always come from reflecting on the ways the project rollout varied from expectations. One way to conduct a meaningful reflection on the project is to gather all the key players in the implementation of the project in a structured meeting that adheres to the following guidelines:

- Establish the purpose and background of the meeting so that participants understand it is not intended to assign blame but to share lessons that can be applied to future projects.
- Establish ground rules and guidelines for the meeting. These guidelines include asking attendees to be open and honest, encouraging everyone in the meeting to participate, reducing external distractions by turning off cell phones and other devices, maintaining an atmosphere of confidentiality, and keeping the

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discussion on target. If unrelated issues arise during the discussion, defer them to another forum (and be sure to follow up as promised).

- Ask the following questions:
  - What went well with the implementation?
  - What would we do again for future projects?
  - What did not go well, and what did we learn that we can improve on?
  - Specifically, what would we do differently for future projects?
- Summarize the discussion and any follow-up measures that arose.
- Thank the participants for their involvement, and let them know how future information regarding the meeting will be communicated.

Common Reasons for Installation Failures

Much of the success of an installation of a new electronic system depends on attentive leadership and governance of the project. Leadership typically takes the form of a steering committee that includes the practice leadership and physician representation. The committee determines measurable goals and the best means for system testing, including before and after live measurements to assess success.

Leadership is responsible for establishing reasonable expectations of what will likely occur in the process as well as what the result of the implementation will be. One good way to develop these expectations is to ask the stakeholders what success will look like to them once the system is implemented. If stakeholders' expectations seem unrealistic or beyond the scope of the project, these discrepancies should be resolved before the project proceeds.

Complicated and intricate interfaces can be difficult to implement and manage. However, such innovations as voice recognition technology have improved greatly, providing convenient and efficient interfacing with the IT system, especially the EHR. Thus, advanced technology should not be dismissed merely because it is complicated and difficult to implement.

Cloud Computing and the Medical Practice

The impact that the internet has had on the medical practice would have been difficult to imagine 30 years ago. And it will continue to have a major, largely unforeseen, influence in the future. One such impact that has emerged is the use of cloud computing, sometimes called *software as a service* (SaaS).

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Cloud computing allows virtually every aspect of medical practice IT services to be performed via the internet. *The cloud* is a generic term that refers to the ability to access services and computing power through a service provider via the internet without maintaining the hardware and software on-site at the practice. The practice must still maintain equipment by which to access the internet and to input to or download information from the cloud, but the amount of equipment needed is greatly reduced compared with a stand-alone system, or a system that is primarily maintained by the practice. Cloud computing carries many potential advantages and disadvantages. Some advantages include the following:

- *Reduced cost*. The cost of cloud computing can be significantly lower than the cost of maintaining software, hardware, and related services in the practice. Cloud services often use the latest hardware and software available, which may be difficult for small and medium-sized practices to afford.
- *Increased security*. The physical and cyber security of IT systems in medical practices is an increasing area of concern. Moving practice IT functions to the cloud reduces the chance of a physical loss of IT assets and may reduce the probability of cyber threats.
- *24/7 service availability*. Most cloud computing services operate on a round-the-clock basis.
- *Backup*. Reputable cloud service companies offer sophisticated backup services to prevent data loss due to catastrophic IT failures.
- *Scalability*. Cloud services may be much more scalable than traditional IT systems.
- *Expertise*. Most small and medium-sized practices do not have the IT expertise on-site that is available with a cloud computing service.
- *Flexibility*. Although most cloud services require a service contract of a specified length, the commitment to any cloud service may be less than the commitment the practice makes when buying equipment and software and hiring the necessary expertise to operate it.

Disadvantages of cloud computing include the following:

- *Variable reliability of the internet*. Cloud services depend on an internet connection, and that connection can be a primary point of failure for a medical practice's IT systems. The practice must consider the reliability of its internet service provider as well as its routers when making the decision to use cloud-based computing services.

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- *Potential for cloud service provider errors*. Cloud service providers are not perfect. Data may be lost. The company might go out of business, or its performance quality might be lower than expected. All these issues must be considered, and a thorough understanding of the consequences of SaaS gained, before committing to a cloud-based service.
- *Lack of function compatibility*. If the practice does not switch all its IT systems to the cloud-based service, will all the IT functions still be compatible? The practice needs to determine which, if not all, services will be transferred to the cloud, assess the provider's services for compatibility issues, and plan for service gaps before committing to moving to the cloud.
- *Negative or skeptical stakeholder temperament toward the cloud*. Some people simply are not comfortable with the idea that their data and important business functions are being handled remotely by a cloud service. **Attitudes** are a rather intangible consideration, but they should be discussed with practice stakeholders to gauge comfort level (Mehrtak et al. 2021; Moumtzoglou and Kastania 2014; Quach et al. 2022; Torrieri 2011).

Attitude
Mental state indicating level of readiness.

IT Governance

Successful adoption of an IT system for a medical practice requires well-structured IT governance. Forming this structure is the first step in going digital.

IT governance frames the practice's expectations for how the IT systems being considered will enhance its operations and bring additional value to patients. Like all practice decisions, IT system implementation must be guided by the mission, vision, and values of the practice.

A readiness assessment of the practice should be conducted to analyze how it is organized. In this process, each of the following elements should be honestly and realistically assessed (HealthIT.gov 2013):

1. Is adequate support in place for the investment and training in IT systems by the governing board of the practice?
2. What administrative processes are employed by the practice?
3. Are these administrative processes streamlined and documented? (An example is shown in exhibit 3.10.)
4. Are clinical workflows in the practice well understood and documented on flowcharts?

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5. Are data collection and reporting processes in the practice well established and documented?
6. What is the level of computer literacy and comfort with IT of practice staff and physicians?
7. Does the practice have access to reliable and adequate IT infrastructure, such as high-speed internet connectivity?
8. Does the practice have sufficient financial capital to purchase new or additional hardware?
9. Do any clinical priorities need to be considered, such as diabetic care, morbidity from obesity, and other chronic disease? (In specialty practices, a registry is often helpful in following patients with particular diseases or those that have undergone special procedures. A disease registry is a tool and process for tracking the clinical care and outcomes of a specified patient population. Registries are used to support care management of these groups of patients. For example, a disease registry might track all patients with diagnoses of heart disease or diabetes.)
10. Does the practice have specialty-specific requirements?

One of the biggest challenges in introducing medical practices to modern information management systems has been the slow adoption rate. IT adoption in practices has lagged other areas of the healthcare industry for a number of reasons, including the following:

- *High cost*. Physicians have long demonstrated efficiency in their ability to use paper records. The cost and inconvenience of conversion have been major

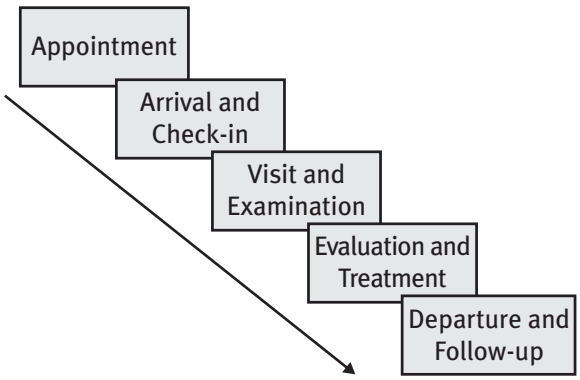


Exhibit 3.10 Simple Process Flowchart for a Patient Visit

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impediments to implementing information management systems in the practices.

- *Issues surrounding change management*. Although much more efficient than paper records, the adoption curve for an information management system requires changes in process flow and the adoption of new skills. Practitioners are often reluctant to embrace these kinds of changes.
- *Lack of interoperability*. Many early medical record systems were proprietary, which often made interconnectivity among systems difficult to achieve, limiting the usefulness of the technology. In addition, the companies that offered these systems were often small and prone to leaving the market, either through merger and acquisition or by going out of business. As a result, practices were left with systems that could not be maintained and therefore had limited usefulness. Although this situation has greatly improved in recent years, the concern lingers and should be considered when evaluating any IT system.

System Security and Privacy

The concern for security and privacy in the healthcare environment has never been greater than it is today. According to a report issued by the US Department of Health and Human Services, over 700 healthcare data breaches occurred in 2022. Healthcare data breaches have consistently trended upward from 2012 to 2021 and doubled in the past three years (HHS 2023). Although little information is available about specific breaches related to medical practices, this trend represents an area of great concern. Practices must be vigilant to safeguard their data not only to protect the integrity of the practice but also to ensure the privacy of the patients. The biggest issue related to the breach of healthcare data is identity theft; however, new threats have emerged, including the use of ransomware, whereby malicious software is implanted in the computer system that denies access to the data until a ransom is paid to the hackers. Blackmail is another potential problem.

Whatever the specific threat, most patients do not want their personal information shared with others. In one notable case, MCNA Dental, a Medicaid and Children's Health Insurance Program service provider, suffered a major healthcare data breach impacting more than 8.9 million individuals, revealing their Social Security numbers and personal data. As of June 1, 2023, it marked that year's largest reported healthcare data breach (Rodriguez 2023).

HIPAA violations are also on the rise. As exhibit 3.11 illustrates, there is a steady increase in HIPAA violations reported.

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Exhibit 3.11
HIPAA Violations

Year	Resolved After Intake and Review	Investigated: No Violation	Investigated: Corrective Action Obtained	Total Resolutions
2018	16,989	267	632	25,089
2019	19,584	444	803	29,853
2020	19,826	661	872	26,530
2021	20,661	817	714	26,420

Source: HHS (2022).

These data indicate that although malicious hacking is a serious source of compromise for healthcare systems, violations of HIPAA and similar data breaches are more common because of careless behavior on the part of individuals in the practice. Some of these behaviors include the following:

- Lacking or not enforcing internet use policies.
- Not encrypting sensitive information. All information sent via the internet should be encrypted to prevent the malicious use of practice or patient information.
- Not training staff properly on internet security. This training should be a standard part of new employee orientation, and refresher training should occur on a regular basis.
- Using weak passwords, sharing passwords, or writing passwords in locations where they can be easily found. Another problem related to passwords is that many users fail to change them on a regular basis.
- Clicking on malicious links (known as phishing) and knowingly or unknowingly providing access to cyber criminals.
- Not having rule-based access. Everyone working on the practice computer system should be given access based on their need to know specific information and their roles and responsibilities. In the absence of such measures, if a breach occurs, access to the system should be limited to some extent.

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- Having inadequate firewall, malware, and virus protection. A firewall is a network security system designed to prevent unauthorized access to or from a private network. Firewalls and other preventive programs can limit the potential for unauthorized access as well as the introduction of malicious software into the practice's IT systems. They can be software based, hardware based, or a combination of both.
- Failing to regularly monitor systems for failure. All IT systems in the practice should be checked regularly for the possibility of breaches, malware, and other malicious activity (Rubright 2023).

Hacking and Internet Fraud in Medical Practices

Hacking and other breaches of the data systems and patient portals of medical practices pose an increasingly serious problem. Cybersecurity attacks disrupting the healthcare sector are and will continue to be a concern. Nearly 93 percent of healthcare organizations reported at least one security breach in the last three years, according to the Herjavec Group (2020). Security breaches encompass denials of service, malicious code, ransomed data, and other incidents. Medical practices that are part of larger healthcare entities may suffer from breaches that affect their parent organization (Mitchell 2021).

The problem worsened in 2020, when cybercriminals took advantage of increased vulnerabilities during the COVID-19 pandemic resulting from healthcare organizations' reliance on remote access and digital services. Cyberattacks on healthcare organizations more than doubled in 2020 compared with 2019—with almost one-third of those attacks involving ransomware (FBI 2020).

The theft of patient data is a violation of HIPAA regulations, but it can also lead to theft of patients' identities as well as medical identity fraud. Medical identity fraud occurs when hackers steal patient information and use that information to file fraudulent Medicare or Medicaid claims in the name of the patient. Billions of dollars are lost each year because of medical identity fraud, which has been identified as a priority by the Office of Inspector General of the US Department of Health and Human Services (OIG 2023).

Physician practices are vulnerable to hacking incidents, and there have been several notable examples in recent years. Exhibit 3.12 lists several of the largest hacking incidents that occurred in 2022. These examples illustrate the importance of cybersecurity measures for physician practices, including strong passwords, employee training on phishing e-mails, and regular system backups. Medical practices should also consider using security software and working with cybersecurity experts to protect patient data from hacking incidents (Landi 2018).

Healthcare organizations are required to report hacking incidents under certain circumstances. For example, in the United States, healthcare organizations are required to

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Exhibit 3.12
Large Healthcare Hacks, 2022

Regulated Practice Entity	Number of Patient Records Exposed	Cause of Breach
Community Psychiatry Management, LLC (Mindpath Health)	193,947	Compromised e-mail accounts
Atrium Health	Patient portals and website	Denial of service attacks (McMillan 2023)
BayCare Clinic, LLP	134,000	Impermissible disclosure of protected health information attributable to website tracking technology
DPP II, LLC (Home Care Providers of Texas)	125,981	Ransomware attack (data theft confirmed)
UCLA Health	94,000	Impermissible disclosure of protected health information attributable to website tracking technology
Stroke Scan Inc.	50,000	Hacking incident (no public breach announcement)

Source: *HIPAA Journal* (2023).

report any breach of unsecured protected health information (PHI) affecting 500 or more individuals to the US Department of Health and Human Services (HHS) within 60 days of the discovery of the breach. Smaller breaches affecting fewer than 500 individuals must be reported to HHS on an annual basis (HHS 2020).

According to HHS data, the number of reported hacking incidents is increasing. In 2020, there were 616 reported breaches affecting 500 or more individuals; hacking was the most common cause of these breaches. However, it is important to note that not all healthcare organizations may report hacking incidents or breaches, and some incidents may go undetected or unreported (HHS 2020).

Artificial Intelligence

Artificial intelligence, or AI, is being used to analyze large amounts of medical data and help doctors make more accurate diagnoses. The use of AI is expected to become a more important part of the medical practice IT systems in the future. Although AI may be very

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useful and has the potential to improve many aspects of clinical care and efficiency, caution should be used as it is implemented (Beam et al. 2023; Browne 2018; Hamet and Tremblay 2017).

Discussion Questions

1. What are some of the important purposes of an electronic records system?
2. Discuss some of the reasons why implementing electronic records in a medical practice is so difficult.
3. What is meant by the term *meaningful use*, and what are its components?
4. What are some important considerations for project management in the implementation of an information system?
5. What are some of the key steps in selecting a medical record system for the practice?

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CHAPTER 4

REGULATORY ISSUES, THE LAW, AND PRACTICE MANAGEMENT

Risk comes from not knowing what you're doing.

—Warren Buffett

Learning Objectives

- Appreciate the number of regulations affecting the medical practice.
- Understand the nature of contracting.
- Describe contracting prohibitions for medical practice contracts.
- Articulate legal requirements for a valid contract.
- Understand the seriousness of the Stark law and the Anti-Kickback Statute.

Introduction

Healthcare is one of the most heavily regulated industries in the United States. The need for such extensive regulation is understandable when one considers the impact of healthcare and the medical practice on society (Field 2008). In recent years, calls for additional regulation have increased in the wake of criticism that the US healthcare system and physician practices may place patients at undue risk because of the imbalance in the agency relationship that exists between the physician and their patients (Makary 2012).

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The medical practice makes decisions and guides patients on matters of great consequence. In addition, providers, unlike most other types of professionals, can influence the behaviors and actions of consumers. Most patients have limited knowledge of healthcare, and as a result, they rely on the physician or provider to serve as their agent in seeking solutions to their healthcare needs (Gafri and Whelan 1998). Some observers argue that the provider–patient relationship constitutes an agency relationship under the law; at the least, the practitioner has an absolute obligation to act in the best interest of the patient (ACP 2019; this resource is a valuable reference that all practice managers and leaders should be familiar with and have available for use in the practice). This unmatched position of trust also places the healthcare provider in a position to potentially abuse the relationship because they have such power over the patient.

One issue that emerged as a consequence of the traditional fee-for-service or volume-based care model is physician-induced demand (PID). PID is an economic concept whereby the service provider is in a position to create demand for services for the provider's own benefit. Because medical services have, until recently, been reimbursed entirely on a volume basis—such that the more service that is provided, the more the practice is paid—physicians have had an incentive to deliver more services than patients may need (Johnson 2014). Through policy and education, and aided by the growth of reimbursement models based on value rather than volume, practices must defend against such self-serving behavior.

The number of rules and laws regulating healthcare is enormous. The Affordable Care Act (ACA) alone contains more than 11,000 pages of regulations (O'Donnell and Akinnibi 2013). Being aware of, let alone understanding, all the rules and regulations pertaining to healthcare delivery is almost impossible for any practice manager. One way for managers to stay current with new and changing rules and regulations is to regularly check sources such as the following:

- The *Federal Register*, at www.federalregister.gov
- The US Department of Health and Human Services "Laws & Regulations" web page, www.hhs.gov/regulations
- The Centers for Medicare & Medicaid Services (CMS) "Regulations & Guidance" web page, www.cms.gov/regulations-and-guidance/regulations-and-guidance.html
- The websites of, briefings by, and seminars offered by professional organizations, such as the American College of Healthcare Executives (www.ache.org), Medical Group Management Association (www.mgma.com), Healthcare Information and Management Systems Society (www.himss.org), Healthcare Financial Management Association (www.hfma.org), and American Group Psychotherapy Association (www.agpa.org)

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- CMS's Center for Consumer Information & Insurance Oversight website, www.cms.gov/cciio/resources/regulations-and-guidance/

Another recommendation is to have a working relationship with a law firm that specializes in healthcare matters; when in doubt about regulations, seek its opinion. Newsletters published by health law firms can also be helpful in keeping the manager current on new and changing regulations. The American Health Lawyers Association (www.healthlawyers.org) may be a useful resource in selecting a law firm for the practice.

Jurisdiction

The term *jurisdiction* refers to the governmental unit that is empowered to make regulations and to enforce those regulations. Medical practices are governed under the laws of local, state, and federal jurisdictions. On occasion, international law may also be relevant.

Legal issues in the practice management realm generally fall into two categories:

1. General applications of the law, which include most areas of state and federal law that apply to all businesses and all employment situations
2. Specific applications of the law, which apply to the medical practice and the healthcare environment

It is important to understand that the states have a major role in regulating healthcare (Berwick 2012; Chiu, Thow, and Bero 2022; Nathan 2017). Under the US federalist system, governing responsibility is allocated between the federal and state governments (Gutierrez et al. 2016; Sommers 2017; Sommers et al. 2015). Differences in the states' implementation of healthcare regulations have become more apparent as the country's political divides have widened in recent years. The ACA is a perfect example, as some states refused Medicaid expansion on what seemed to be political grounds (Collins and Lambrew 2019), while other states sought to expand coverage.

Administrators and physicians must stay current on all rules and regulations for the states in which they practice. This has become especially important as healthcare is increasingly being delivered virtually across state lines (Robeznieks 2021).

Laws Regulating the Organization and Governance of Corporations

Business Licenses

Most cities and municipalities require all businesses, including medical practices, to be licensed. Practice leaders should check with the local city clerk's office for regulations

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regarding the requirements for business licenses and proceed in accordance with those local requirements.

Licensing of Medical Professionals and the National Provider Data Bank

The licensing of medical professionals is performed at the state level. With that activity falling to the states, national licensing functions are naturally limited. However, a national database, known as the National Provider Data Bank (NPDB), tracks the significant negative occurrences of medical professionals. Prior to the development of the database, practitioners who had serious issues related to their practices could avoid detection by moving to another state. The NPDB, which now contains more than 1.26 million reports, allows any prospective employer or any hospital considering privileging a practitioner to determine whether that practitioner has any serious violations in their background, regardless of the state of origin.

The database requires that the following events be reported (HHS 2023):

- *Adverse actions*—negative actions taken against providers related to licensing, privileges, and certifications. Licensing bodies, hospitals, and certification authorities are required by federal law to report these events to the NPDB.
- *Medical malpractice payments*—payments made on behalf of a provider by their insurance company for a written claim or judgment against the provider.
- *Criminal convictions*—all criminal convictions handed down by federal or state courts.

Practices must be aware of the NPDB status of their current and prospective providers. These data are available at the NPDB website, www.npdb.hrsa.gov. In addition to making inquiries when the practice is vetting new members, practice leaders should query the NPDB annually to check the status of each current provider.

Corporate Organizational Documents

Practices can organize in a number of legal forms, as discussed in chapter 1. A provider may choose to practice outside of any legal entity, which is known as a sole proprietorship. Other forms, as shown in exhibit 4.1, require the creation of a legal organization. The exhibit compares the different legal forms of practices on the basis of their prominent features.

Each state has laws in place governing the establishment of corporations and partnerships. In cases other than a simple proprietorship, most states require the medical practice to file organizational documents with the state and to register as a business. These documents include the corporate or partnership name, the business purpose in the case of

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Exhibit 4.1
Corporate and Partnership Entities and Their Taxation

Issue	C Corporation	S Corporation	Partnership	LLC
Tax treatment	The corporation and the shareholders are taxed on distributions (known as *double taxation*)	Expenses and revenues flow through to shareholders	Expenses and revenues flow through to partners	Expenses and revenues flow through to partners
Limit on ownership	No limit on number of shareholders or classes of stock	Limited to 75 shareholders, only one class of stock, and must be a domestic corporation	Can be a partnership of individuals or other entities such as corporations or trusts	Must have at least one owner, but no limitation on the number of owners
Designation of owners	Shareholder	Shareholder	Partner	Manager, sometimes referred to as member
Governance	Directors and officers	Directors and officers	Partners	Members or managers
Governing documents	Articles of incorporation, bylaws, and agreements between the shareholders	Articles of incorporation, bylaws, and agreements between the shareholders	Partnership agreements	Articles of organization, operating agreement
Authority to bind entity to contracts	Officers and directors	Officers and directors	Partners	Members or managers
Liability of owners for obligations of the organization	No personal liability, but individuals can be held liable for their own actions	No personal liability, but individuals can be held liable for their own actions	Partners are jointly and severally liable for obligations (meaning that each partner is liable for all obligations)	Members and managers are not liable for obligations of the organization (individuals can be held liable for their own actions)

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corporations, the registered agent, and the person responsible for tax and other important notifications regarding the entity. Corporations are also required to indicate the person filing the incorporation documents, including information about the number and type of shares that will be issued. Additionally, many states require the names and addresses of the directors and officers and the legal address of the company.

In most cases, practices wishing to form corporations or partnerships should seek the advice of competent legal counsel and other advisers to be sure that the practice is properly documented and registered.

Finally, requirements for corporate documents regarding meetings, election of officers, shareholder meetings, voting, and other corporate organizational duties must be followed. Corporations that fail to do so risk the removal of their corporate status, resulting in the loss of all corporate benefits.

Special Organizational Forms for Professionals

Chapter 2 discusses some of the many ways that medical practices can be organized and structured. Although the laws vary from state to state, a number of special categories for medical practice corporate forms are common. They are as follows:

- Professional corporations (PCs)
- Professional associations (PAs)
- Professional limited liability corporations (PLLCs)

These organizations have characteristics that differentiate them from other incorporated entities. These characteristics include the following:

- The owners must be providers and licensed by the state.
- In many states, the tax year for PCs, PAs, and PLLCs must be based on the calendar year. This requirement helps prevent tax avoidance by shifting income between the owners and the company, as most PCs operate as a vehicle for providing income to the owners.
- Taxation is different, as PCs are taxed at a flat 35 percent and distributions are taxed again at the individual level.
- Industry-specific rules may apply to the organization regarding its name or how it is otherwise designated. This requirement varies significantly by state. For example, practices in California must receive permission to use a name other than their own. “The use of any fictitious, false, or assumed name, or

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any name other than their own by a licensee either alone, in conjunction with a partnership or group, or as the name of a professional corporation, in any public communication, advertisement, sign, or announcement of their practice without a fictitious-name permit obtained pursuant to Section 2415 constitutes unprofessional conduct" (California Medical Board 2023).

- The owners are required to be the primary producers of the services offered. This regulation is a departure from most corporate structures. The potential hazard in situations whereby the governed are also the governors is that rules and performance standards are less rigorous. The practice manager must continually help the providers understand that the organization provides the structure and framework to fulfill the goals of the physicians.
- Special approvals may be required by state medical governing boards of the secretary of state.

Because rules of incorporation for professionals vary by state, practice leaders should familiarize themselves with the laws of the state in which they intend to incorporate.

Contract Law

Contract law is an important aspect of practice administration and requires special expertise. Depending on the organizational structure of the practice, contracts exist between the physicians and the practice, other providers, outside payers, vendors, and other entities. Entities that contract with medical practices include the following:

- Government payers
- Commercial payers (insurance companies)
- Other healthcare organizations (e.g., when a practice member becomes a hospital's medical director)
- Medical supply companies
- Equipment leasing companies
- Real property lessees
- Lending institutions, in the form of promissory notes
- Staff, in the form of employment agreements

Some aspects of standardized contracts may seem routine, but the practice manager should be cautious about the execution of any contract without expert legal advice.

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Federal and State Taxation

Retained earnings
Profits not distributed to shareholders as dividends; the accumulation of a practice's profits less any dividends paid out. Retained earnings are not spendable cash.

Equity
The owners' share of a business.

Stock
A certificate (may be electronic or another type of record) that indicates ownership of a portion of a corporation; a share of stock.

Accountant
A person who is trained to prepare and maintain financial records.

Medical practices are subject to all local, state, and federal rules and regulations on taxation, including property, sales, employment, and income taxes. These taxes vary greatly by state, and special circumstances may apply in any particular jurisdiction, so medical practice managers must understand all the relevant tax issues that pertain to the practice in its location. Complications may arise if the practice operates in more than one jurisdiction, such as practice locations in more than one state, which is increasingly common today.

PCs, PAs, and PLLCs are taxed differently in many states and taxed at the highest individual tax rate. This is one reason medical practices often do not retain earnings. In other corporations, **retained earnings** add to owner **equity**, which ultimately can be taxed at a favorable capital gains rate (Harkavy 1953; see also Nelson 2020). (In many corporations, retained earnings increase the equity and, therefore, the value of the **stock** of the corporation. When the stock is held for the required period and then sold, that gain can be treated under a favorable capital gain status.) In special corporations such as PCs, these retained earnings may be treated as ordinary income and taxed at the highest individual tax rate.

Practices, especially small ones, often contract with **accountants** and other tax professionals to assist with the many requirements of the tax system and the intricacies of the corporate forms that practices may employ (Rupert, Anderson, and Hulse 2022).

Antitrust Laws

Recently, antitrust laws have not been as significant an issue for most medical practices as in the past; however, like other businesses, medical practices are subject to antitrust laws. Antitrust laws are intended to prevent the concentration of market power, which could create monopolies that become harmful to individuals and the public at large. The following are some of the relevant federal laws governing antitrust (Legal Information Institute 2022):

- The Sherman Act regulates the artificial raising of prices by prohibiting the restriction of supply and other monopolistic practices.
- The Clayton Act clarifies and provides additional specifications to the Sherman Act regarding remedies, exceptions, and enforcement strategies.
- The Robertson-Patman Act prohibits the establishment of minimum prices as a protection for small business.
- The Federal Trade Commission (FTC) Act outlaws unfair trade practices and unfair methods of competition, such as deceptive advertising. The FTC is allowed to investigate and apply financial remedies to violations of the law.

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- The Hart-Scott-Rodino Act requires large corporations to file a report with the FTC prior to a merger so that the commission can determine whether the merger would violate antitrust laws.

In addition, state antitrust statutes may influence the merger and acquisition activity of medical practices.

Although this area of the law has been relatively quiet in recent years for medical practices, the US Department of Justice has brought multiple antitrust actions against healthcare organizations for anticompetitive activities related to merger activities (DOJ 2021a). These cases demonstrate the importance of practice managers maintaining familiarity with antitrust laws. For in-depth information and full guidance on antitrust issues related to medical practices, see FTC (2023).

Labor Laws

Generally speaking, all labor laws apply to the medical practice, as they do to any employer. Therefore, practice managers must be aware of all local, state, and federal laws that apply to employment practices. For example, laws vary in their application on the basis of the number of people employed, highlighting the importance of understanding the nature of each law and how it applies to particular organizations.

Labor laws deal with fair employment practices, wage and hour rules, and nondiscrimination in hiring and employment. The US Department of Labor (2023b) maintains a helpful website that provides a great deal of information about individual states' employment laws as well as federal regulations.

The Americans with Disabilities Act of 1990 provides definitions and rules regarding the employment of people with disabilities and defines what constitutes a disability. As with other federal laws regarding employment, this act is enforced by the US Equal Employment Opportunity Commission (EEOC 1990).

The Occupational Safety and Health Administration (OSHA 2023) enforces regulations related to workplace health and safety and investigates potential safety violations and outbreaks of workplace illnesses.

The Family and Medical Leave Act and its amendments offer protection for employees who request a leave of absence to deal with health-related issues. The legislation provides for the following (DOL 2023a):

Twelve workweeks of leave in a 12-month period for:

- the birth of a child and to care for the newborn child within one year of birth;
- the placement with the employee of a child for adoption or foster care and to care for the newly placed child within one year of placement;

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- the care of the employee's spouse, child, or parent who has a serious health condition;
- a serious health condition that makes the employee unable to perform the essential functions of his or her job;
- any qualifying exigency arising out of the fact that the employee's spouse, son, daughter, or parent is a covered military member on "covered active duty;" or
- twenty-six workweeks of leave during a single 12-month period to care for a covered service member with a serious injury or illness if the eligible employee is the service member's spouse, son, daughter, parent, or next of kin (military caregiver leave).

These policies are intended to protect workers from being terminated because of an extended leave due to the conditions described here, and they help the organization preserve the employer–employee relationship.

The private inurement doctrine is part of the Internal Revenue Code and prohibits private parties from receiving undeserved benefits from a charitable organization as defined under section 501(c)(3) of the code. This issue may be relevant for physician practices or for physicians in employment or contractual relationships with not-for-profit organizations, such as hospitals, because it imposes certain compensation restrictions. In general, any compensation received from a charitable organization must be set at market rate. This doctrine often comes into play when practices are acquired by hospital systems or other organizations that are tax-exempt under section 501(c)(3) (IRS 2016).

Other laws that have major implications for medical practices include the following:

- Health Insurance Portability and Accountability Act (HIPAA), discussed later in this chapter
- ACA
- Genetic Information Nondiscrimination Act
- Health Information Technology for Economic and Clinical Health Act, discussed in chapter 3

Federal Laws Governing Medicare Fraud and Abuse

Fraud and abuse result in billions of wasted dollars each year and pose a significant problem for Medicare and Medicaid. In 2021, the US Department of Justice announced criminal charges against 138 defendants, including 42 doctors, nurses, and other licensed medical professionals, in 31 federal districts across the United States for their alleged participation in healthcare fraud schemes that resulted in approximately $1.4 billion in alleged losses

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(DOJ 2021b). The increase in telemedicine and the availability of emergency funding for healthcare during the COVID-19 pandemic provided new opportunities for fraud. Significant efforts are ongoing to deter fraud and abuse, which in some cases has created difficulties for providers. Many well-intended, law-abiding practitioners have been caught up in the web of regulation because of misinterpretations of these complex rules. Regulations related to fraud and abuse require great attention and focus in the medical practice environment (FBI 2023).

False Claims Act

The False Claims Act is part of the US Criminal Code. Passed in 1863, the law provides for assignment of liability, including triple damages and penalties, to anyone who knowingly submits or causes the submission of a false claim to the US government. The act was a result of false claims for payment submitted to the government during the Civil War (Showalter and Sanford 2023).

This law has found new meaning for the medical practice in modern times because it is used to prosecute fraudulent claims for medical services submitted to Medicare and Medicaid. It contains an old legal device known as *qui tam*, a Latin phrase meaning "he who brings a case on behalf of our Lord the king, as well as for himself" (DOJ 2017). The qui tam provision allows whistleblowers to bring cases on behalf of the federal government against providers they believe have engaged in fraudulent billing activities to Medicare or Medicaid. The federal government has encouraged whistleblower activity by providing large bounties in cases in which money is recovered from the provider.

Anti-Kickback Statute and Physician Self-Referral Law

The Anti-Kickback Statute (AKS) and the Stark law have similar aims: to protect the assets of the Medicare and Medicaid programs. Exhibit 4.2 compares the two sets of laws. As defined in the law (42 U.S.C. § 1320a-7b(b)), "the AKS is a criminal law that prohibits the knowing and willful payment of 'remuneration' to induce or reward patient referrals or the generation of business involving any item or service payable by the Federal health care programs (e.g., drugs, supplies, or health care services for Medicare or Medicaid patients). Remuneration includes anything of value and can take many forms besides cash, such as free rent, expensive hotel stays and meals, and excessive compensation for medical directorships or consultancies" (OIG 2023). Note that the AKS applies to all federal programs and those doing business with the government, whereas the Stark law applies specifically to the Medicare and Medicaid programs.

The Stark law, named for Representative Fortney Hillman "Pete" Stark Jr. (D-CA), who sponsored the initial legislation, is set forth in section 1877 of the Social Security Act. Also known as the *physician self-referral law*, Stark deserves special consideration by

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Exhibit 4.2
Comparison of the Anti-Kickback Statute and Stark Law

	Anti-Kickback Statute (42 USC § 1320a-7b(b))	Stark Law (42 USC § 1395nn)
Prohibition	Prohibits offering, paying, soliciting, or receiving anything of value to induce or reward referrals or generate federal healthcare program business	• Prohibits a physician from referring Medicare patients for designated health services to an entity with which the physician (or immediate family member) has a financial relationship, unless an exception applies • Prohibits the designated health services entity from submitting claims to Medicare for those services resulting from a prohibited referral
Referrals	Referrals from anyone	Referrals from a physician
Items/ services	Any items or services	Designated health services
Intent	Intent must be proven (knowing and willful)	• No intent standard for overpayment (strict liability) • Intent required for civil monetary penalties for knowing violations
Penalties	Criminal: • Fines up to $25,000 per violation • Up to five years in prison per violation Civil/administrative: • False Claims Act liability • Civil monetary penalties and program exclusion • Potential $50,000 civil monetary penalty per violation • Civil assessment of up to three times the amount of the kickback	Civil: • Overpayment/refund obligation • False Claims Act liability • Civil monetary penalties and program exclusion for *knowing* violations • Potential $15,000 civil monetary penalty for each service • Civil assessment of up to three times the amount claimed
Exceptions	Voluntary safe harbors	Mandatory exceptions
Federal healthcare programs	All	Medicare/Medicaid

Note: This chart is for illustrative purposes only and is not a substitute for consulting the statutes and their regulations.
Source: Adapted from OIG (2016).

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practice leaders because it has an enormous impact on the medical practice. It is intended to prohibit self-referral of designated services (listed in exhibit 4.3) offered by the provider, a family member of the provider, or an entity controlled by the provider or family member. The prohibition stems from the conflict of interest and the potential for abuse that arise when a provider refers patients to services or facilities in which the provider has an economic interest.

The Stark law is complicated and requires careful attention from practice leaders. It must be taken into consideration in all contracts and dealings with related parties, such as family members or other organizations in which the practitioner has a financial interest (CMS 2023; StarkLaw.org 2013).

Stark allows for certain exceptions so that the normal activities of the medical practice are not impeded. Those exceptions are noted in exhibit 4.4.

All members of the medical practice who are involved in contracting and developing relationships with third-party providers or considering merger or acquisition activity must be familiar with Stark and the AKS. It is also important that all providers and staff in the practice have a thorough understanding of the provisions of the Stark law that apply to the practice. Policies and procedures need to be in place to safeguard the practice from any violations, and periodic **audits** should be undertaken to ensure that all billing practices and contractual relationships are in compliance with the Stark law. Even the inadvertent violation of Stark's provisions can result in heavy fines and possibly endanger the practice's existence.

Audit
A careful review of financial records to verify their accuracy.

Exhibit 4.3
Designated Health Services Defined by the Stark Law

Clinical laboratory services
Physical therapy services
Occupational therapy services
Outpatient speech-language pathology services
Radiology and certain other imaging services
Radiation therapy services and supplies
Durable medical equipment and supplies
Parenteral and enteral nutrients, equipment, and supplies
Prosthetics, orthotics, and prosthetic devices and supplies
Home health services
Outpatient prescription drugs
Inpatient and outpatient hospital services

Source: CMS (2023).

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Exhibit 4.4
General Exceptions to the Stark Law

Physician services (section 411)
In-office ancillary services (section 412)
Prepaid plans (section 413)
Intrafamily rural referrals (section 414)
Academic medical centers (section 415)
Implants furnished by an ambulatory surgical center (section 416.1)
Erythropoietin and other dialysis-related drugs furnished or ordered by a facility treating end-stage renal disease (section 416.2)
Preventive screening tests, immunizations, and vaccines (section 416.3)
Eyeglasses and contact lenses following cataract surgery (section 416.4)

Source: OIG (2023).

Regulation of Billing in Medical Practices

The complicated nature of billing and payment processes in the medical practice and the constant addition and revision of billing regulations have made compliance a major issue. Unlike in many industries, erroneous billing of medical services may not only cause unhappy patients but also lead to legal action by the federal or state governments. The practice manager and leaders must ensure the highest integrity in their billing practices. To meet this expectation, standards for ethical and accurate billing must be established, and staff must be well trained on the intent of the practice's billing standards and the details of the billing process. Innocent mistakes can result in substantial penalties, and willful deceit or careless disregard for proper procedures can lead to criminal enforcement (CMS 2015).

Medical billing has become a profession unto itself. Wise practice leaders consider employing or contracting with a Certified Professional Coder (CPC) and other billing specialist. CPCs undergo a rigorous training and examination process to reach this professional designation, making them the best-qualified individuals to provide coding and billing activities for the practice (AAPC 2023).

As in so many areas, being familiar with the resources that provide guidance and information to organizations on billing, coding, and other management concerns is important because the field is changing rapidly and the amount of information available is beyond the scope of any textbook. All practice managers and leaders must continuously seek new knowledge, updates, and information and look for credible websites to follow on a regular basis. Many of these sites offer daily updates that deliver news and information to the practice leadership by e-mail. A few of the many reputable and reliable websites include the following:

- www.ache.org (American College of Healthcare Executives home page)
- www.cms.gov (CMS home page)

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- www.aafp.org/family-physician/practice-and-career/managing-your-practice.html ("Managing Your Practice" page of the American Academy of Family Physicians)
- www.medscape.com/resource/medical-practice-management (Practice Management & Strategy page of the Medscape website)
- www.mgma.com (Medical Group Management Association home page)
- www.amga.org (home page for the organization formerly known as the American Medical Group Association)

In addition to the organization, agency, and reference sites listed, virtually every medical specialty society has practice management information, much of which is specific to the specialty. Choose the resources that serve the particular practice best, as the vast amount of information available can easily be overwhelming, and follow them. Information that is received but unused is of no value; be thoughtful about what you choose to read and digest.

Medical Records Regulations

Health Insurance Portability and Accountability Act

HIPAA was enacted in 1996 by Congress and signed by President Bill Clinton the same year (GPO 1996). The act is among the most important laws affecting the medical practice in the area of patient privacy. HIPAA establishes strict rules and accountability for sharing patients' protected health information (PHI) in any form: written, oral, or electronic (HHS 2022).

The act allows the sharing of PHI on an as-needed basis in three principal areas (GPO 1996):

1. *Treatment*—One or more providers may discuss PHI when providing, managing, or coordinating care.
2. *Payment*—The medical practice may disclose PHI in order to receive payment for services rendered.
3. *Healthcare operations*—This can include a significant number of activities related to the operation of the medical practice:
    a. quality assessment and improvement activities, including case management and care coordination;
    b. competency assurance activities, including provider or health plan performance evaluation, credentialing, and accreditation;

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c. conducting or arranging for medical reviews, audits, or legal services, including fraud and abuse detection and compliance programs;

d. specified insurance functions, such as underwriting, risk rating, and reinsuring risk;

e. business planning, development, management, and administration; and

f. business management and general administrative activities of the entity, including but not limited to: de-identifying PHI, creating a limited data set, and certain fundraising for the benefit of the covered entity.

HIPAA Privacy Breach Management

As discussed in chapter 3, HIPAA violations are on the increase, at least partly because of the increased use of electronic records. Criminals no longer have to steal a physical record to breach the privacy of a patient; locking the medical records room door is no longer an adequate safeguard of the patient record.

Social media has also provided new ways to breach privacy, often in unintended ways. The innocent posting of a picture, a tweet, or a blog comment can lead to a privacy violation. One of the best ways to prevent privacy breaches is to have in place carefully crafted social media and medical record access policies that are in compliance with HIPAA. Several key privacy principles should be included as part of any such policy (GPO 1996):

- Recognition of the professional and ethical responsibility to protect patient privacy
- Strict limitation on or prohibition of transmitting patient images
- Prohibition of the posting or publishing of any information that could lead to the identification of the patient
- Compliance with all practice policies regarding the use of electronic devices
- Maintenance of a professional relationship with the patient at all times

Retention of Medical Records

The retention guidelines for medical records vary by state. The state medical board should be able to provide guidance on this issue. In most cases, the records of children need to be maintained longer than those of adults. New digital technologies make the task of medical

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record retention easier and less expensive than paper records. The practice manager should be versed in the medical record retention regulations in the state where the practice is located (AHIMA 2013).

Malpractice

Malpractice can be defined as professional activity that is careless, illegal, or improper. In medicine, malpractice is a special type of personal liability related to professional practice and the physician–patient relationship, which is considered an implied contractual relationship. Although in the eyes of the law, the physician–patient relationship is contractual, it is different from contracts that are used in other aspects of our lives (e.g., the purchase of a car or a home). It is essentially an agreement between the physician and the patient that the physician will provide the patient with treatment.

Furthermore, the law has very specific definitions of treatment. Malpractice law varies by state, so, as with each area of law considered in this chapter, the practice leader must be knowledgeable about the laws of the state where the practice is located.

These state laws, as well as additional federal legislation, regulate the operations of the medical practice and, importantly, the relationship of the medical practice with its physicians and with third parties. Examples of the third parties affected by malpractice laws and regulations include the following:

- Federal contracts, such as those with Medicare and Medicaid and other government payers
- Commercial insurance contracts
- Provider agreements with hospitals and other healthcare organizations

The most common contract in the medical practice is the provider agreement between the physicians of the practice and the organization.

The Medical Practices Act

The federal Medical Practices Act requires that all physicians who practice in the United States be licensed. It sets out general definitions of professional and unprofessional conduct and creates licensing bodies to regulate medical practice. The act prohibits splitting bills for services between providers and generally regulates aspects of medical practices such as marketing management relationships; fee sharing; and related arrangements between physicians, their practice, and other parties.

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Additional Medical Practice Legislation: More on the Health Insurance Portability and Accountability Act

Although the HIPAA patient privacy provisions tend to receive the most attention, the law was passed with this main purpose (GPO 1996):

> [T]o amend the Internal Revenue Code of 1986 to improve portability and continuity of health insurance coverage in the group and individual markets, to combat waste, fraud, and abuse in health insurance and healthcare delivery, to promote the use of medical savings accounts, to improve access to long-term care services and coverage, to simplify the administration of health insurance, and for other purposes.

Medical practices must be sure to maintain policies and procedures that protect the privacy of their patients. These should include having private spaces available to discuss personal issues related to their financial obligations, treatment plans, and scheduling of procedures to ensure that others cannot see or hear the reason for other patients' visits. Information visible on computer screens and tablets and documents used at the appointment desk or nurses' station must also be protected if they contain PHI.

Increasing Regulatory Burden

A 2021 report published by the Medical Group Management Association documented the perception that the regulatory burden on medical practices is increasing. In a survey of 500 medical practices, 89 percent of respondents said that the regulatory burden had increased, and 97 percent said that reducing this burden would allow more resources to be devoted to patient care (MGMA 2021). Two of the most burdensome regulatory requirements identified by the respondents were precertification for services and the obligations of the No Surprises Act, which prohibited balance billing practices for certain out-of-network care and established new patient transparency protections, such as the good faith estimate process, provider directory requirements, and continuity of care protections. These mandates created significant new requirements for medical practices beginning on January 1, 2022. The law added provisions to existing rules under the Internal Revenue Code, the Employee Retirement Income Security Act, the Public Health Service Act, and the Federal Employees Health Benefits Act to allow for its implementation and enforcement.

Certificate of need (CON)
Approval issued by a governmental body to an individual or organization proposing to construct or modify a health facility or to offer a new or different service.

Certificate-of-Need Laws

Some states require a **certificate of need** (CON) to be granted for hospital or health system building projects that expand the capacity of the practice. CON laws are intended to encourage effective allocation of healthcare resources. In most states that require a CON for expansion of services, the state's health plan indicates the level of need for certain services on

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the basis of specific community and population characteristics. Some states have repealed their CON laws, so the practice must understand CON as it relates to its jurisdiction and maintain awareness of political shifts that may influence CON decisions.

Risk Assessment

Assessing risk is an important aspect of practice management. Risk occurs in a number of domains, and all should be considered when creating a risk mitigation program:

- Malpractice risk
- Risk due to the physical environment
- Employee safety and security
- Financial risk
- Compliance risk

Additional areas of risk, including emergency management and cybersecurity, are discussed in detail in chapter 11.

Insuring Against Risk

Although they may expend great effort to act prudently in all respects of their operations, many practices purchase insurance against many of the risks that can arise. Types of insurance include the following:

- General business liability insurance, which protects against a variety of risks that can occur at the medical practice (e.g., a visitor falling in the waiting room or an accident occurring in the parking lot)
- Business property insurance, which protects against the loss of equipment or damage to the practice building
- Business income protection, which provides coverage for a loss of income to the practice for reasons such as fire damage to the practice building
- Data breach protection insurance, a new line of insurance that provides assistance and economic protection against the consequences of a data breach
- Officers and directors insurance, which provides protection against actions by the officers and directors of the practice that may result in lawsuits such as employment discrimination or wrongful dismissal

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Medical practice leaders must have a firm grasp of the terms of all insurance policy coverage and ensure that the practice is adequately protected from the hazards intended to be covered. Specifically, most policies contain exclusions and limitations of coverage that need to be understood before purchasing the policies. It is also important to deal with reputable agents and insurance companies; in the end, the protection is only as good as the company behind the policy.

Medical Malpractice Insurance

Malpractice is a special category of insurance of particular interest to medical practices. Malpractice insurance is offered in three primary forms:

1. *Claims made coverage*. This type of coverage pays for claims and the defense of claims taking place during the time that the policy is in force. For example, for a policy issued on January 1, 2022, and expiring on December 31, 2022, only claims made in 2022, and only for actions occurring during that time leading to the claims made, would be covered. The advantage of this type of policy is that the premiums are relatively inexpensive; however, the practice needs to make sure its coverage does not lapse without an extended policy endorsement.
2. *Occurrence coverage*. This type of coverage pays for any claim that occurred during the policy. For example, if a policy was issued on January 1, 2022, and expired on December 31, 2022, any alleged malpractice that occurred during that time would be covered regardless of when the claim of that malpractice was made.
3. *Extended reporting endorsement*. These policies are offered to providers and medical practices to extend the coverage of claims made policies. They essentially convert a claims made policy into an occurrence policy so that any alleged act of malpractice that occurred during the policy is covered. This type of coverage can be helpful when considering changes in employment, practice arrangements, retirement, or other situations that may cause a claims made policy to expire. Whether to purchase an extended reporting endorsement for a provider can be a significant point of discussion during contract negotiations because of the expense of these policies.

The practice must carefully consider the type of malpractice coverage it purchases for the protection of its providers, including the potential consequences triggered by providers joining and leaving the organization.

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Coverage Limits for Malpractice Insurance

When contemplating coverage limits for malpractice insurance, the risk of claims and the historical amount of claim settlements should be considered. Historically, obstetrics and gynecology, neurosurgery, and orthopedic surgery are higher-risk specialties. Claims tend to be more frequent for these specialties, and settlements more substantial, than for other types of practice. Because of this history, practices specializing in these areas often purchase higher limits of coverage than practices specializing in areas that are considered less of an insurance risk, such as pediatrics and family medicine.

Premiums can vary dramatically from state to state on the basis of the tort laws that govern malpractice claims and adjudication. In states where damages are limited, malpractice costs tend to be lower than in states that do not place a cap on damages. Each practice needs to consider malpractice coverage options in the context of its state's laws.

Medical malpractice coverage should be obtained for both the practice and the individual practitioners. Medical practice liability cannot be shielded by any corporate form from malpractice liability; this point differentiates malpractice from other types of liability. Finally, the majority of medical malpractice claims are brought against a relatively small number of providers, and this number is closely correlated with the number of patient complaints received by those providers (Hickson et al. 2002).

Risk Mitigation Programs

As the old saying goes, "An ounce of prevention is worth a pound of cure." That maxim holds true in medical malpractice. In this arena, prevention is typically carried out through risk mitigation programs. Risk mitigation requires (1) active and continuous monitoring by the practice manager of the behavior of all members of the practice and (2) intervention when violation of expected behavior occurs. Hickson and his colleagues at Vanderbilt University School of Medicine have undertaken substantial work on the factors that influence malpractice claims and how they can be prevented (Vanderbilt Center for Patient and Professional Advocacy 2023). Disruptive behavior and the lack of professionalism have been found to be two causes at the root of malpractice cases (Catron et al. 2015; Pichert et al. 2013; Reiter, Pichert, and Hickson 2011).

An effective risk management program for reducing malpractice claims and improving the patient experience is founded on the following principles (Hickson, Moore, and Pichert 2012):

- Professionals are willing to engage in all aspects of the job—tedious or otherwise—to the best of their ability.
- Professionals commit to
  - technical and cognitive competence,

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- clear and effective communication,
- being available,
- modeling respect, and
- self-awareness.

- Professionalism demands self- and group regulation.

Another important benefit of a risk management program is improved employee satisfaction. Medical practices are stressful enough without having additional tensions imposed by the detrimental behaviors of practice members. Additional information about managing staff issues can be found in chapter 8.

Discussion Questions

1. Discuss some of the major regulations and laws that govern contracting for medical practices.
2. What are designated health services, and what is their significance to the medical practice?
3. What are some exceptions to the Stark law?
4. What components of a contract are required for it to be legally binding?
5. Why are "claims made" malpractice insurance policies so popular?
6. What are some of the resources that will help practice managers stay abreast of changes in local, state, and federal health law affecting medical practices?

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CHAPTER 5

STRATEGIC PLANNING, PROJECT MANAGEMENT, AND MARKETING IN PRACTICE MANAGEMENT

Strategy without tactics is the slowest route to victory, tactics without strategy is the noise before defeat.

—Sun Tsu

Learning Objectives

- Understand why medical practices market their services.
- Discuss the reasons why practices add ancillary services.
- Appreciate and describe the nature and aspects of strategic planning in the medical practice.
- Appreciate and describe the nature of project management in the medical practice.

Introduction

Strategic planning, project management, and marketing are all essential elements of modern-day practice management. As illustrated in exhibit 5.1, the cycle of practice development starts by considering the overall mission of the practice. The next step is engaging in a strategic planning process and then deciding whether to offer new services or improve existing

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Exhibit 5.1
Cycle of Practice Development



services. Finally, a project management approach is used to develop tactics for implementing the strategic plan and to market the new or improved services in an appropriate way. This chapter examines the elements of this process.

Strategic Planning

Strategy is a set of actions and policies that provide the blueprint for achieving an overall aim. Strategic planning is defined as the process by which an organization develops and makes decisions about its strategy, or direction, which often involves the allocation of resources and a commitment to implement those decisions (Ginter, Duncan, and Swayne 2018).

Actionable knowledge is essential in strategic planning, as it allows organizations to make informed decisions and take effective action toward achieving their goals. Here are some examples of actionable knowledge in strategic planning:

- *Conducting a SWOT analysis*. By conducting a SWOT (strengths, weaknesses, opportunities, and threats) analysis, organizations can gain actionable knowledge about their internal and external environments and make informed decisions about their strategic direction.
- *Developing SMART goals*. Setting SMART (specific, measurable, attainable, relevant, and time-bound) goals is another essential aspect of strategic planning. By creating goals that are specific, measurable, and realistic, organizations can focus their efforts on achieving tangible outcomes (Leonard and Watts 2022).
- *Conducting market research*. Conducting market research is crucial in strategic planning, as it provides actionable knowledge about customer preferences, market trends, and competitive landscapes. By gathering information about their target markets, organizations can make informed decisions about product development, pricing, and marketing strategies.
- *Analyzing financial data*. Analyzing financial data, such as revenue, expenses, and profit margins, is essential in strategic planning. By understanding their financial position, organizations can make informed decisions about resource allocation and investment strategies (Williams and Brown 2014).

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Other techniques that are also useful are PEST analysis and policy mapping, which are discussed later in this chapter.

Once the mission of the organization has been examined as a starting point, the strategic product planning process can begin. Exhibit 5.2 illustrates one approach to the strategic planning process for the medical practice. A number of important steps must be taken. First, the practice leaders must obtain input from all stakeholders. This input may be gathered by administering surveys, examining market data, and collecting competitor information, such as where the practice's patients come from, the hospitals they use, the services they offer, and the payment methods accepted. At this point, the practice leaders should also consider any regulatory issues that must be addressed, such as certificate of need (discussed in chapter 4).

The next step is to conduct a self-examination of the practice. This process, which is discussed in detail later in this chapter, should include an internal and external assessment of the practice.

In exhibit 5.2, notice the importance of communication to the strategic planning process. Input from a broad base of stakeholders is essential, as is clarifying and reviewing that input and making sure that all stakeholders understand the decisions that are made and why. A good communication strategy helps ensure acceptance of the decisions and engagement in the tactics for implementation. This communication strategy is an essential part of overcoming resistance to change and provides an opportunity for feedback that can improve the planning process and the success of implementation. People do not support what they do not believe, and lack of agreement leads to half-hearted efforts by members of the practice.

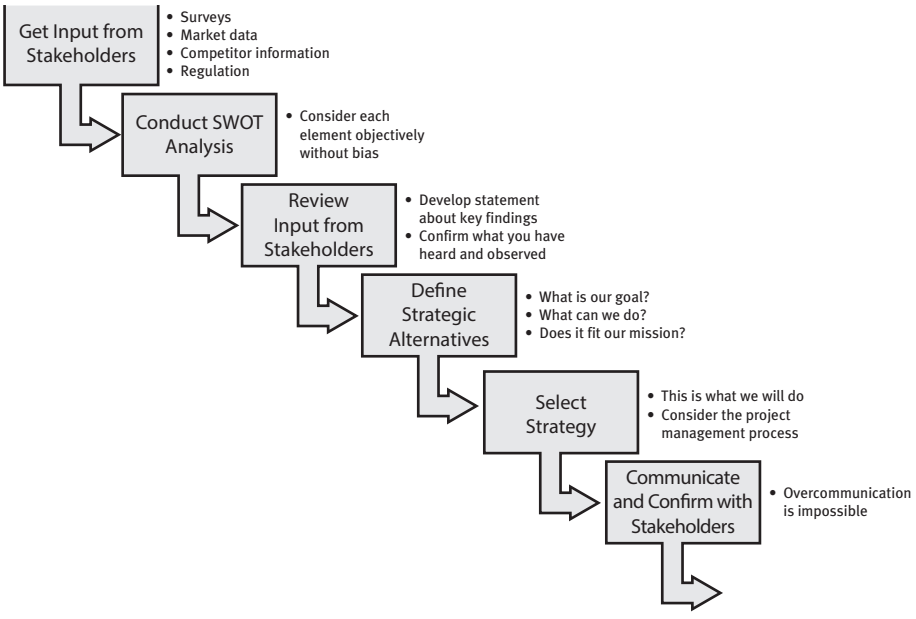


EXHIBIT 5.2
Strategic Planning Process

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Choosing a Strategic Alternative

Strategic alternatives are long-term plans that a medical practice develops to set its direction, considering its goals and available resources.

Four types of strategies can be used in the strategy formulation process:

- *Directional strategies* help the medical practice define its purpose and what it wants to achieve. Directional strategies focus on the business efforts and resources that the practice needs to grow, maintain stability, and reach its goals.
- *Adaptive strategies* help determine whether it is best to expand the medical practice, reduce the medical practice, or remain the same.
- *Market-entry strategies* are used when the practice is considering an expansion, which may involve acquisition, cooperation (joint ventures), or development of new services within the medical practice.
- *Competitive strategies* are used when the practice seeks to gain competitive advantage over its competitors, which may include nontraditional providers. These strategies help the medical practice create a long-term strategic plan for positioning its services against those of its competitors.

Directional strategies must be employed first, followed by adaptive strategies, and then market-entry strategies. Decisions must be made in this order to define the activities of the medical practice. The practice's market position can then be determined, and services can be launched.

Depending on the size of the organization and its structure, which may include multiple locations or divisions, achievement of the medical practice's mission, vision, values, and goals is further focused by divisional adaptive strategies that consider where investment for growth or expansion should occur (Gillespie, Dunsire, and Luce 2018; Ginter, Duncan, and Swayne 2018; van Wijngaarden, Scholten, and van Wijk 2012; Williams and Brown 2014).

Developing a Communication Plan

As indicated in the previous section, the success of any project or implementation of new strategy depends in large part on the effectiveness of the communications related to the effort. Therefore, each project or implementation strategy must include a communication plan. Several important steps are involved in developing an effective plan:

Step 1: Title your communication plan in a way that specifies the project or strategy being discussed.

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Step 2: State the overall objectives of the communication plan. This step may sound simple, but it is necessary to prevent confusion about the nature of the communication.

Step 3: Determine the audience. Identifying the individuals who receive the communications influences the level of detail, language, and format of the communication.

Step 4: Establish the specific issues that must be addressed. In other words, what is the message? How much should be communicated at any given opportunity? Although overcommunication is probably not a concern, people can be overloaded with information at any one time. Consider how much and what level of detail should be given on a topic. Large, important projects may require a series of communications to effectively convey all the information that needs to be understood by the audience.

Step 5: Determine the channel of communication to be used. Many possibilities are available, including a paper memo, an email, face-to-face meetings in large or small groups, individual meetings, a press release, or a newsletter or blog. The effectiveness of the message may depend on how it is delivered. High-impact messages, on the one hand, may require face-to-face delivery in a venue where people can ask questions to deal with their concerns. On the other hand, an announcement of moderate or low impact, such as regarding a shift in routine, may only require an email or a paper memo. General news can be effectively distributed by a newsletter or a blog.

Step 6: As the old saying goes, "Old news is no news." Information must be communicated in a timely fashion to afford little opportunity for misinterpretation or for rumors and distortions to circulate among members and staff of the practice. Often, practice managers and leaders take an undue amount of time to communicate because they are focused on crafting the perfect message. In the process, they fail to get the communication out immediately, creating unnecessary anxiety or allowing a distorted sense of reality to develop through the rumor mill, which then requires tremendous effort to correct.

This may be an opportune time to address a pervasive presence in every office setting, including the medical practice: the rumor mill or grapevine. The rumor mill is an informal channel of communication in which information courses quickly through the organization, but that information is often inaccurate, incomplete, or intended to distort the truth. Effective practice managers are conscious of the rumor mill or grapevine and provide accurate, timely communication to prevent people from relying on rumor as their primary source of information.

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Having a communication plan helps ensure that people are informed, feel included, and are able to deflect rumors with facts.

Strengths, Weaknesses, Opportunities, and Threats Analysis

SWOT
A strategic planning technique that systematically looks at a company's strengths, weaknesses, opportunities, and threats.

Among the most useful tools in strategic planning is the **SWOT**, which stands for *strengths*, *weaknesses*, *opportunities*, and *threats*. A SWOT analysis is a self-examination of these attributes from an internal and external stakeholder perspective. This process can be difficult to perform effectively because it is often hard to critically examine oneself without introducing bias, such as overestimating one's strengths, underestimating weaknesses, exaggerating opportunities, and minimizing threats. Therefore, the SWOT facilitator is a valuable participant who establishes ground rules for conducting the exercise in a way that provides the most useful information. Simply trying to confirm the excellence of the practice is not useful in moving forward. Recognizing and capitalizing on strengths is important, but equally important is to be realistic about all the SWOT elements.

The SWOT analysis is often conducted as a face-to-face activity. SWOT sessions are designed to be versatile and thus can be appropriate for the overall performance of the practice or can address a specific area of concern. The steps of an effective face-to-face SWOT analysis are as follows:

1. If desired, the group selects an outside facilitator versed in organizational development techniques.
2. Select a tool such as nominal group technique or affinity charting to be sure all input is received and captured.
    a. Nominal group technique is a method for group brainstorming that encourages contributions from every participant (CDC 2018).
    b. The affinity chart organizes many ideas into their relationships. It encourages teams to be creative and use their intuition. It was developed in the 1960s by Japanese anthropologist Jiro Kawakita (ASQ 2023).
3. Decide which individuals should attend the session, and be as inclusive as practical so that a number and variety of stakeholder views can be included.
4. Schedule this SWOT session for a time that enables maximum participation.
5. Plan the meeting such that it follows good meeting protocol, as discussed in chapter 9. For example, distributing some or all of the information listed in step 6 to participants prior to the exercise may be helpful.

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6. Prepare for the SWOT analysis. This activity may include collecting key data from the following sources:
    a. Surveys
    b. Practice metrics
    c. Market data
    d. Demographic data
    e. Competitor information
    f. Changes to the practice environment, such as new regulations
    g. Results of interviews, minutes, discussions, or other potentially important information
7. On the day of the exercise, establish ground rules for the activity. Any meeting should feature a safe environment so that people can speak freely without fear of repercussions and the respectful participation and careful attention of all attendees. Additional ground rules may be established using the following tactics:
    a. Ask all participants to be engaged and be present for the full duration of the exercise. Fulfilling this request requires clinical staff to have adequate coverage and to turn off pagers, cell phones, and other devices.
    b. Ask all participants to state their expectations for the exercise. The facilitator, the practice manager, or another practice leader should record these expectations and review them at the end of the exercise to determine whether they were met.
    c. Let the participants know that issues not specifically related to the SWOT analysis that may emerge will be added to a designated "parking lot" (a meeting technique that allows the facilitator to record important information to be addressed later).
    d. Discuss plans for follow-up, such as how information will be distributed and an expected time frame for resolving issues or completing other follow-up activity.
    e. Always ask the participants if they have any conditions to add to the list of ground rules and then seek agreement.

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8. Conduct the SWOT analysis. The SWOT exercise involves the following steps:

   a. Ask participants to consider questions about the strengths, weaknesses, opportunities, and threats facing the practice.

   b. Record each participant's input on a flip chart or another recording medium that is visible to all participants. This activity is typically performed by the facilitator, who should take care to solicit input from all participants. Certain participants may be more dominant than others, and the facilitator should be adept at ensuring each participant has an opportunity to provide input. (Even if the practice contracts with an outside firm for facilitation, the skills required to facilitate such events are worth acquiring by the practice leaders, as they are essential for effective practice management in general. Leaders should consider taking a class or workshop in organization development and practicing the learned skills by conducting a session themselves.)

   c. Complete a SWOT analysis matrix, like the one shown in exhibit 5.3. Once each segment of the matrix is filled in, the facilitator should summarize the key points and solicit additional input. If the list of items seems too large to discuss in a manageable way, the facilitator may engage the participants in prioritizing the list.

   d. Reinforce a realistic mindset about solutions. The practice should recognize which resolutions are in its control and which are not when addressing the issues that arise from the analysis. For example, an increase in the number of patients with high-deductible health plans may be seen as a practice threat, but the practice may have few or no options to

EXHIBIT 5.3
SWOT Analysis

Strengths • Resources • Providers • Staff • Location • Services	**Weaknesses** • Lack of capacity • Old equipment • Waiting times • Community awareness
Opportunities • New services • Increase market share • Better management • Affiliations • Mergers or acquisitions	**Threats** • Affordable Care Act/regulations • Nontraditional competitors • Aging workforce • Financial constraints

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change that trend. A better focus for the practice in this case may be on helping patients manage the cost of their plan by enhancing the financial counseling it provides.

Force Field Analysis

Much of what takes place in today's practice management environment is in response to the changing external healthcare environment. Change management is discussed in detail in chapter 8; here, we introduce one tool that is of particular importance in the context of the strategic planning process: force field analysis (Lune and Berg 2017).

Force field analysis, created by Kurt Lewin as a tool to take the SWOT process a step further, helps medical practices understand the barriers to implementing ideas or changes identified in the SWOT analysis. Exhibit 5.4 illustrates the force field analysis process.

When the forces seeking to push a change forward are equal to the forces pushing against the change, the situation will remain the same. To overcome that deadlock, the forces seeking change must be greater than the forces opposing it. Force field analysis provides a useful visual tool to examine the forces seeking and opposing change.

Participants in the force field analysis can use a template like the one shown in exhibit 5.4 as a framework to discuss the barriers creating resistance to change and to design interventions that help overcome that resistance. One example is the resistance to adopting electronic health records. Barriers reinforcing the resistance might be a lack of training on the use of the new system. An obvious solution is to increase the amount of training that users receive to improve their confidence in their ability to operate the system correctly.

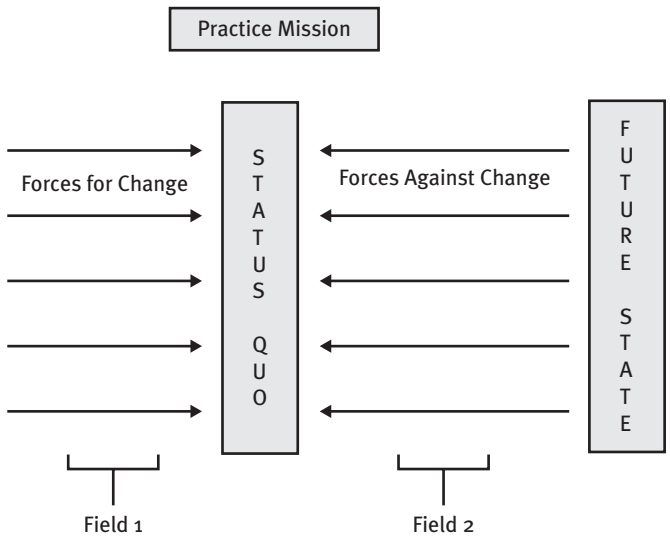


Exhibit 5.4
The Future State of the Practice

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Another example is the difficulty of recruiting providers. One barrier might be a lack of assistance for paying student loans. The solution may be for the practice to enhance its salary and benefits package by providing reimbursement for student loans.

A force field analysis is an effective way for stakeholders to collectively examine a barrier and devise plausible solutions to overcome it.

Economic Analysis of a New or Improved Service

Often a strategic analysis indicates the need for the practice to offer a new service. The decision to add a service typically involves answering several questions:

- Does the service add to the business of the practice?
- Does the service fill a strategic need for the practice, such as a service identified by a community needs assessment?
- Does the service offer a competitive advantage?
- Will the new service bring a new group of patients to the practice that it has not seen before?
- Will the revenue from the new service justify the investment?
- Is a certificate of need required?
- Does the practice have the existing capability to perform the new service in a high-quality way, or will it involve acquiring new talent?

Some additional considerations related to offering a new service include the following:

- Cost of new space or of adapting existing space
- Personnel costs or professional fees
- Equipment cost or capital cost
- Financing cost
- Incremental costs (e.g., regularly needed supplies)
- Expected incremental revenue

When contemplating a new service, practice leaders must be realistic in estimating revenue and clear about the basis for their financial projections. Some approaches to determining the expected volume of service include the following:

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- Conduct a market assessment, which includes
  - performing a focused SWOT analysis related to the specific service under consideration by comparing the practice to competitors (e.g., in terms of whether nontraditional competitors are entering the market);
  - examining referrals and other data elements captured by the practice management system over the past two to three years by source of the referral: physician, physician assistant or nurse practitioner, or group;
  - reviewing the payer mix, which is the percentage of payment received from each payer, over the past two or three years, and noting any changes in employers or insurance carriers in the market; and
  - collecting and compiling the data, and sharing it with key stakeholders.
- Base decisions on data while being aware of bias and oversimplifications of the results, as new services represent significant investments of time, talent, and other resources.
- Ask providers to account for the number of services ordered in a given time frame by recording the number of services ordered.
- Examine payer information such as Medicare data (see, e.g., CMS 2023) and determine the frequency of services.
- Consult specialty societies for information about a particular service.
- Employ a consultant to evaluate the business case for the new service.

Analysis of a Capital Investment

Many computer programs that perform capital investment analysis are available and inexpensive, such as Microsoft Excel (Marcinko and Hetico 2012; Veney, Kros, and Rosenthal 2009). Exhibit 5.5 shows four primary methods for determining the financial viability of a capital investment:

1. Breakeven analysis
2. Payback analysis
3. Net **present value** (NPV) analysis
4. Internal rate of return (IRR) analysis

Present value
A concept that compares the value of money available in the future with the value of money in hand today. It is used to analyze investment opportunities that have a future payoff. For example, $78.35 invested today in a 5 percent savings account will grow to $100 in five years. Thus, the present value of $100 received in five years is $78.35.

Fixed cost
A cost that does not change as sales volume changes (in the short run). Normally includes such items as rent, depreciation, interest, and any salaries unaffected by increases or decreases in sales.

Variable cost
A cost that changes as sales or production changes. If a business is producing nothing and selling nothing, the variable cost should be zero.

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Exhibit 5.5
Capital Investment Analysis Methods

Method	Advantages	Disadvantages
Breakeven analysis	• Very easy to calculate • Easy to interpret • Easy to communicate	• No time frame for breakeven • Depends on knowing volume of service expected
Time to payback	• Very easy to calculate • Easy to interpret • Easy to communicate	• Answers not financial in terms • Future cash flows after payback not included in analysis • Does not consider the TVM or profitability
Net present value	• Results in dollars • Accounts for all cash expenses for the life of the project • Includes the time value of money (TVM)	• The selection of the discount rate is very speculative • Rate conditions likely to change over the life of the project
Internal rate of return (IRR)	• Accounts for all cash expenses for the life of the project • Includes the TVM • Commonly used method, so most stakeholders recognize it	• Assumes reinvestment at the IRR • Can get more than one answer

Breakeven point
The amount of revenue from sales that equals the amount of expense. Often expressed as the number of units that must be sold to produce revenues equal to expenses. Sales above the breakeven point produce a profit; sales below it produce a loss.

Breakeven Analysis

A breakeven analysis allows the practice manager or the financial manager of the practice to determine the number of services needed to break even, considering **fixed costs** and **variable costs**. This exercise can be especially useful when the expected service volume is known. A breakeven analysis uses the following formula (SBA 2023):

$$\text{Breakeven point} = \frac{\text{Fixed costs}}{\text{Unit selling price} - \text{Variable costs}}$$

Exhibit 5.6 shows the results of a breakeven analysis graphically. Note that assuming constant fixed cost, the **breakeven point** is where total revenue equals total cost.

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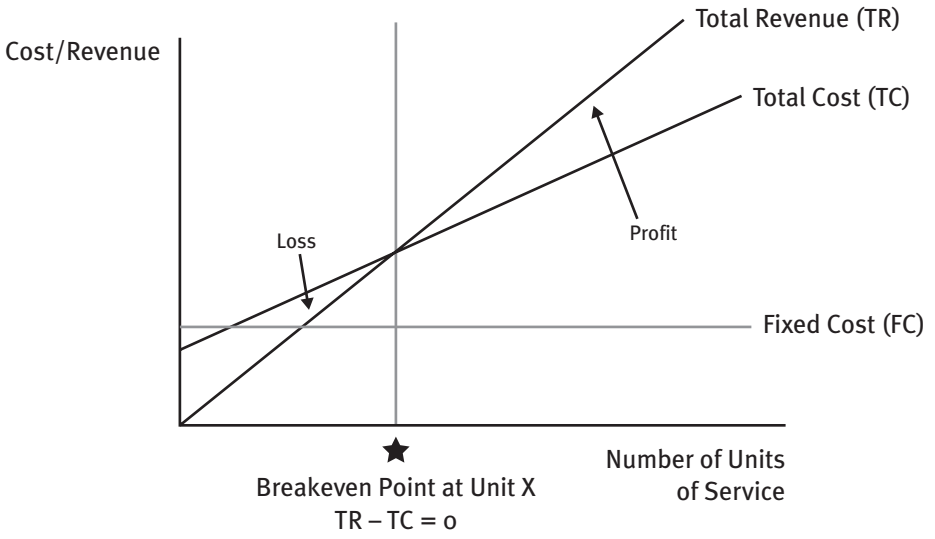


EXHIBIT 5.6
Breakeven Analysis

PAYBACK ANALYSIS

Payback analysis is similar to breakeven analysis in that both are easy to calculate and interpret. However, unlike a breakeven analysis, a payback analysis gives an answer in terms of time rather than monetary units. The formula for payback analysis is

Payback period in years = Intitial investment ÷ Annual cash flow
= Years to pay back intital investment.

For example, the payback period of an initial investment of $500,000 given annual **cash flow** of $50,000 per year is

$$\text{Payback} = \frac{\$500{,}000}{\$50{,}000} = 10 \text{ years.}$$

This analysis requires careful consideration of cash flow, which is operating revenue minus operating cost. It does not take profitability into account.

Cash flow
The amount of cash generated by business operations, which usually differs from profits. Calculated as operating revenue minus operating cost.

NET PRESENT VALUE

NPV provides information about viability in financial terms. The formula for calculating the NPV of an investment is as follows:

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$$\text{NPV} = R \times \frac{1 - (1 + i)^{-n}}{1} - \text{Initial investment},$$

where

R is the net cash inflow expected for each period, with net cash flow equal to total revenue minus total expenses;

i is the required rate of return per period, which may be established by the practice as a reasonable **return on investment** or may be the **interest** rate the practice must pay to borrow money for the capital investment; and

n is the number of periods during which the project is expected to operate and generate cash inflows.

Return on investment
A measure of the effectiveness and efficiency with which managers use the resources available to them, expressed as a percentage.

Interest
A charge assessed for the use of money.

One consideration related to the required rate of return is the best use of funds. For example, is investing in the practice preferred to using the money for other purposes, such as distribution as income? These issues can be determined by comparing alternative rates of return on the investment and deciding what is an adequate rate.

An example of a worksheet for an NPV calculation is shown in exhibit 5.7. In this example, the practice is purchasing a machine for $5,000 to perform electrocardiograms (EKGs). The practice leader expects the machine to be useful for five years and the practice to receive a net cash flow of $1,000 in each year. The practice's desired rate of return is 8 percent. To determine the NPV of the practice's cash flow, the practice leader or financial manager must find the appropriate present value factor (PVF). The PVF can be found in the NPV tables published in many sources, including financial textbooks.

EXHIBIT 5.7
Calculation of the Net Present Value of Electrocardiogram

Years	0	1	2	3	4	5
Initial investment	($5,000)					
Projected net cash flow		$1,000	$1,000	$1,000	$1,000	$1,000
Discount rate		8.0%	8.0%	8.0%	8.0%	8.0%
Present value factor		.9259	.8573	.7938	.7350	.6806
Annual present value of cash flow		$926	$857	$794	$735	$681
Total present value of cash flow	$3,993					
Net present value of project	($1,007)					

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Exhibit 5.8 illustrates the section of the NPV table of interest in this example. It shows corresponding PVFs for 8 percent, 9 percent, and 10 percent rates of return for periods 1, 2, 3, 4, and 5.

The total NPV of cash flows from the project is calculated to be $3,993. After subtracting the initial investment of $5,000, the resulting NPV of the project is a loss of $1,007. If the project is being contemplated strictly on a financial basis, it would not be considered viable.

Adjustments can be made to improve the financial status of the project, such as increasing the annual cash flow by increasing the use of the machine or purchasing a less expensive piece of equipment. Perhaps the machine lasts longer than anticipated and produces cash flows for a longer period. One weakness of NPV analysis is that it does not take into account cash flows after the initial period of the investment.

The practice manager needs to be cautious in calculating the NPV of a project because it is easy to overestimate cash flow, underestimate cost, and use unrealistic return rates. The project, and the assumptions being made in the calculations, should be discussed with all appropriate stakeholders in the practice. In particular, the providers who will be ordering the studies (EKGs in the previous example) and the technical staff who will perform them using the equipment should be consulted to understand what the likely volume and capacity of the equipment will be.

In the case of very new technology, practice leaders are encouraged to review the literature on the application of these technologies and understand how likely they are to change from their current state. This review will help the practice decide the rate of return needed to make the project practical. If the technology is likely to change quickly, a higher rate of return is required.

In cases in which the equipment is essential to the proper care and standard convenience of patients, the NPV of the project is less important. The NPV may also be less important in cases in which the equipment is needed for the convenience of the practitioners or for marketing reasons. For example, a practice that does not have certain equipment is likely sending patients to other locations to obtain those services, potentially delaying

Exhibit 5.8
Present Value Factors

Periods	8%	9%	10%
1	.9259	.9174	.9091
2	.8573	.8417	.8264
3	.7938	.7722	.7513
4	.7350	.7084	.6830
5	.6806	.6499	.6209

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treatment or deterring the patients from getting the service; patients may even change practices because of the inconvenience of having to go to multiple locations.

All these considerations need to be taken into account when discussing the possibility of offering a new service or purchasing new equipment for the practice. Leaders must be sure that all stakeholders have a clear understanding of the expectations and possible consequences from the decisions made.

Internal Rate of Return

IRR is another often-used method of evaluating a capital investment, although it is significantly more complicated than the other methods discussed in this chapter.

The formula for calculating IRR is

$$0 = P_0 + \frac{P_1}{(1 + IRR)} + \frac{P_2}{(1 + IRR)_2} + \frac{P_3}{(1 + IRR)_3} + \ldots + \frac{P_n}{(1 + IRR)_n},$$

where P_0, P_1, . . . P_n equals the cash flows in periods 1, 2, . . . n, respectively, and IRR equals the project's internal rate of return.

The problem with this formula is that we must use trial and error to determine the IRR because the equation cannot be solved without knowing the IRR. Of course, resources such as Microsoft Excel and other similar programs are available that allow for easy and specific calculations. Nowicki (2018) provides a valuable resource for practice managers performing capital investment analysis.

PEST Analysis

A PEST analysis considers the political, economic, social, and technological forces that affect the medical practice (Mind Tools 2020).

- *Political factors*—These factors refer to the influence of government policies, regulations, and legal frameworks on business operations. This includes taxation policies, trade restrictions, labor laws, environmental regulations, political stability, and government stability.
- *Economic factors*—These factors refer to the economic conditions that affect the business environment. This includes inflation rates, exchange rates, economic growth rates, interest rates, and unemployment rates.
- *Social factors*—These factors refer to the cultural and demographic factors that influence the business environment. This includes population demographics, social trends, lifestyle changes, consumer attitudes and behavior, and education levels.

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- *Technological factors*—These factors refer to the impact of new and emerging technologies on business operations. This includes technological advancements, research and development activities, innovation, and automation.

By analyzing these factors, organizations can identify opportunities and threats in the external environment that may affect their business operations. A PEST analysis can help organizations develop strategies to leverage those opportunities and mitigate risks.

Policy Mapping

Policy mapping is a technique that is useful in strategic planning to identify, evaluate, and analyze the policy landscape for a particular issue or industry. It involves charting the key policies and regulations that affect an organization's operations and assessing the impact of these policies on the organization's strategic objectives.

The policy mapping process typically involves four steps:

1. *Identify key policies and regulations*. The first step is to identify the key policies and regulations that affect the organization. This includes laws, regulations, standards, and guidelines that apply to the organization's industry, products, or services.
2. *Map the policy landscape*. The next step is to map the policy landscape by visualizing the relationships between the policies and regulations identified in step 1. This can be done by creating a policy matrix or flowchart that shows the interconnections among policies.
3. *Analyze the impact of policies*. After mapping the policy landscape , the next step is to analyze the impact of each policy on the organization's strategic objectives. This involves assessing the opportunities and threats associated with each policy.
4. *Develop policy responses*. Based on the analysis of the policy landscape, the organization can develop policy responses to address the opportunities and threats identified in step 3. This may involve advocating for changes to existing policies or developing new policies that align with the organization's strategic objectives.

The following are some examples of policy mapping in healthcare:

- *Mapping the Affordable Care Act (ACA)*—The ACA is a complex policy that has significant implications for healthcare organizations. By mapping

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the ACA's provisions, healthcare organizations can identify the areas where they are most affected and develop strategies to comply with the law's requirements. For example, healthcare organizations can map the ACA's provisions related to insurance coverage, quality of care, and reimbursement rates to evaluate the impact on their operations and develop strategies to meet the law's requirements.

- *Electronic health records implementation*—Healthcare organizations must comply with policies and regulations related to the implementation and use of electronic health records. Policy mapping can be used to identify the key policies and regulations in this area, such as the Health Insurance Portability and Accountability Act, the Health Information Technology for Economic and Clinical Health Act, and meaningful use requirements. The impact of these policies can then be analyzed and policy responses developed to ensure compliance and optimize the use of electronic health records.
- *Healthcare payment models*—Policy mapping can be used to analyze policies and regulations related to healthcare payment models, such as fee-for-service, bundled payments, and value-based care. The impact of these policies on the organization's financial and operational objectives can be evaluated and policy responses developed to optimize reimbursement and improve patient outcomes.
- *Patient safety policies*—Healthcare organizations must comply with policies and regulations related to patient safety, such as the National Patient Safety Goals and The Joint Commission's Accreditation Standards. Policy mapping can be used to identify these policies and regulations, analyze their impact on patient safety, and develop policy responses to improve patient safety outcomes.
- *Telehealth policies*—Telehealth policies became increasingly important during the COVID-19 pandemic. Policy mapping can be used to analyze the policies and regulations related to telehealth, such as state licensing requirements, reimbursement policies, and privacy and security regulations. The impact of these policies can be evaluated and policy responses developed to optimize the use of telehealth to improve patient access to care.

Both PEST analysis and policy mapping can offer valuable strategic information for medical practices, and they have the advantage of being easy to use and not particularly time-consuming. The major disadvantage of these approaches is that they may not be useful in all situations. For analyzing strategies that are more internally focused, SWOT is more

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useful. It is important for the medical practice to maintain a full array of tools to assist in strategic planning and strategic thinking (AHRQ 2023).

Strategic Thinking

Strategic planning does not just involve applying tools to a process, but strategic thinking as well. Bowman (2016) suggests that organizations can ensure strategic thinking by using four techniques:

1. *Know*: Observe and seek patterns and trends in the practices markets and services.
2. *Think*: Ask tough questions. It is easy to be a "yes" person and go along to get along, but that does not produce the best outcomes. Every person in the organization has a perspective that may be useful and may see something that others do not.
3. *Speak*: Know the terminology of strategic planning and speak using that language. The leadership of the organization may need to provide training to understand this language.
4. *Act*: Make time to think and embrace conflict. Sometimes careful thought leads to a breakthrough in understanding an issue. We should not shy away from civil conflict; rather, invite challenges in a respectful way. This, too, can lead to new ideas and new ways of seeing things. Leaders must lay the groundwork for civil conflict by making the work environment safe for disagreement and by inviting input.

Project Management

Regardless of the decision that the practice makes regarding a given plan or project, the success of an endeavor greatly depends on how well it is managed. Project management skills are essential for the effective practice manager. The skills needed for high-quality project management have been defined in a number of ways; however, the following skills are recognized as essential:

- *Communication*. Virtually every aspect of the management of a medical practice requires excellent communication skills, and this notion holds true of project management. The nature of the project, why the project is important, why it is being undertaken, expectations and timelines for the project, and

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the roles and responsibilities of the project team all must be communicated clearly.

- *Scope*. Scope is an important constraint of a project. It refers to the parameters of the project, and the practice manager must clearly define those boundaries to prevent "scope creep," the tendency of a project scope to increase in size as it is being implemented.
- *Initiation*. Getting a project started is an obvious necessity; and getting it off to a good start is important as well to ensure a smooth overall process. Confusion about roles and scope early on often lead to miscommunication and lack of understanding about what needs to be accomplished.
- *Quality management*. Careful monitoring throughout the project is required to ensure that the project is progressing as planned. When contracting with external vendors to complete projects, the practice leader must oversee the project to make sure it is implemented according to the contract's terms, according to the stated specifications, and at the requested level of performance.
- *Organization management*. Often, projects are disruptive to the organization undertaking them, so the practice manager must anticipate disruptions and involve those who will be affected in the process of mitigating those disruptions.
- *Time management*. Projects are notorious for getting off schedule, sometimes for reasons that are unforeseen. Often, however, they veer off schedule because the time frames were unrealistic or the project was poorly managed. Plan the timeline of projects carefully. Consider what might cause delays. The more complicated the project, the more people are involved and the more likely delays occur.
- *Project integration management*. This strategy is helpful when multiple projects occur simultaneously or when a new project will be integrated into established procedures or activities of the practice. Examples include the integration of a new laboratory system into the electronic health record, management of projects that involve changes in the physical structure of the practice, or addition of equipment, procedures, or service lines.
- *Cost management*. Cost overruns can be a serious problem in project management. They can be avoided by ensuring that the original project is properly specified, either in the contract of outside vendors or by the practice

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as it anticipates the implementation of the project. Careful planning and specification of any project is a fundamental aspect of success.

- *Risk and issue management*. No matter how carefully one plans, any project will encounter unanticipated events that need to be managed to achieve the optimum outcome. Carefully determined timelines, budgets, and other project specifications help offset risk from the beginning, and frequently comparing the plans to actual outcomes helps ensure that the project is running as anticipated. The more specific the timelines and budgets are, the more carefully they can be managed and issues anticipated.

  Projects that involve physical construction or disruptions to service may not only pose special risk to the financial health of the practice but also create hazards that must be avoided. Considerations need to be made regarding patient flow, workplace safety, and any effects on the practice during project implementation, as practices rarely cease operations to implement changes.

The project management process is illustrated in exhibit 5.9, emphasizing some important aspects. For example, all major projects should emanate from the strategic planning process so that the practice remains true to its mission, vision, and values. Planning and design, project execution, and project management form a triangle of recursive interactions. For the project to function in an optimal way, the plan and design may need to be refined or adjusted while the project is being executed and managed.

The final step is closeout and reflection. Each time a practice implements a new project, its leaders should take time at the end to reflect on what went well and what could

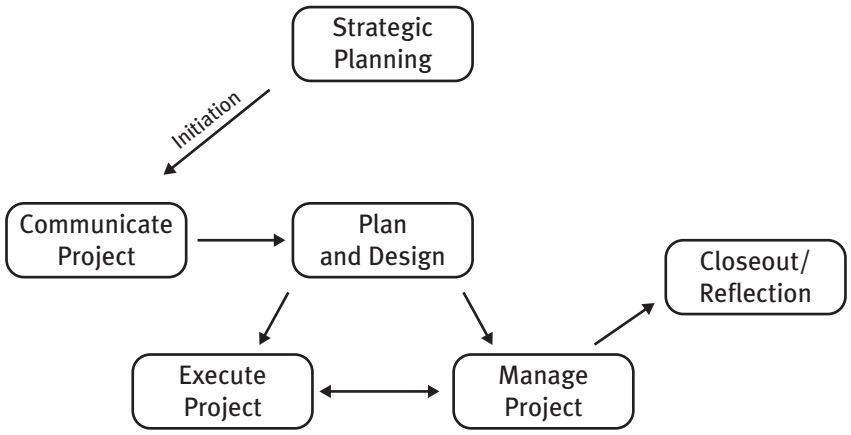


EXHIBIT 5.9 Project Management Process

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be improved. Projects represent an opportunity not only to develop a new aspect of the practice but also to learn how to execute projects more effectively. Each project is a unique learning experience—a viewpoint that the practice manager should encourage among staff and members (Schwalbe and Furlong 2013).

What Is Marketing?

Marketing is often defined in the context of the "four Ps," as depicted in exhibit 5.10. Effective marketing addresses the following categories:

- *Product*—Identifying, selecting, and developing the service.
- *Price*—Determining the price of the service or, in the case of many payers, determining the usual and customary payment for the service.
- *Place*—Determining the distribution channel for the service. Making this determination is no longer a simple exercise because it often involves more than considering simply where the office will be located. In today's world, place may even be virtual, so practices must consider how patients wish to receive the practice's services and how those services can be provided in a safe and effective manner.
- *Promotion*—Determining what strategies will be used to promote the services of the practice.

Preparing a marketing plan can involve a SWOT analysis or a situational 2 × 2 matrix. An example of a matrix is shown in exhibit 5.11, which considers the macroenvironment, consumers, the market, and internal practice factors.

Exhibit 5.10
The Four Ps of Marketing

Product
- SWOT analysis
- Survey information
- Strategic plan(ning)
- Differentiation of service

Place (Distribution)
- Services available at the practice
- Location(s) of the practice

Promotion
- Advertising
- Community events
- Informative events

Price (Positioning)
- Noneconomic factors
- Accepted insurance plans
- Case mix

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Exhibit 5.11
Marketing Plan Situational Analysis Two-by-Two Matrix

Macroenvironment *What does your practice do well?* • Excellent leadership • Excellent physicians • Good reputation • Capacity to serve • Great staff	**Market Analysis** *Where are the opportunities for your practice?* • Untapped market for new procedure • Hiring new physicians • Need for geriatric care in community • Underserved areas of community
Consumer Analysis *What part of your practice needs improvement?* • High nurse turnover • Locations of practices • Reduced capacity due to physician retirement • Provision of geriatric care	**Internal Practice Analysis** *What is happening in your area that could threaten your practice?* • New regulations (e.g., American Rescue Plan Act of 2021) • Aging population • Complexity of business services

Often, people think of marketing as equivalent to advertising. Although advertising is an important component of the marketing effort, no amount of advertising can ensure a successful practice without the proper product offered at a reasonable price in a reasonable location that is accessible to patients.

Marketing in healthcare has changed dramatically in recent years. Not long ago, healthcare marketing was considered unprofessional and unethical. Now, we see many health-related goods and services aggressively marketed to the public and other purchasers of healthcare services.

Physician practices are no exception. Many practices engage in marketing as a fundamental part of their business operation. Of course, marketing can serve not only the practice but also the public. It allows the practice to potentially expand services, and it provides the public with needed information about the availability of healthcare services.

The following story, written by an unknown author and retold by Oetjen and Oetjen (2006, 49), offers a simple and humorous way to think of medical practice marketing:

> If the circus is coming to town and you paint a sign saying, "Circus is coming to Fairgrounds Sunday," that's advertising. If you put that sign on the back of an elephant and walk it through town, that's promotion. If the elephant walks through the mayor's flower bed, that's publicity. If you can get the mayor to laugh about it, that's public relations. And, if you plan the whole thing, that's marketing.

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Marketing the Medical Practice

Rising consumerism has caused a significant shift in the expectations of patients and presents new challenges to the medical practice. They are the direct result of an increase in managed care imposing restrictions on patients' access to care, the growing cost of care, and the lack of involvement of patients and families in their care, all leading to the rise of the patient-centered medical care practice. Patients also have access to more of their health information than ever before and feel more comfortable discussing their care in detail (HHS 2022).

Generational issues play an important role in how practices should be marketed. Understanding the concerns of each generation can help the practice determine which services are important to patients of different generational cohorts as well as how those services are delivered. Generational segmentation may be a very important aspect of medical practice marketing, but the extent to which it applies depends on the nature of the practice. For example, although pediatric practices serve the healthcare needs of children, they must also market to appeal to parents and grandparents. Practices need to take generational characteristics into consideration and think about who they are actually marketing to when deciding on strategies.

Some insights into generational differences include the following (Fry 2020; MGMA 2019; Taylor and Pew Research 2016):

- The *traditionalists* (born 1928–1945), also known as the Silent Generation, rely heavily on primary care practices for their medical care and consume traditional media, such as television and newspapers. They often have great respect for authority and tend to defer to physicians readily regarding medical decision-making, thereby making direct contact between the patient and a trusted provider an effective tool for marketing.
- The *baby boomers* (1946–1964) are self-directed. They like to research and verify recommendations given to them by their providers. Relevant media, such as web-based information about disease and treatment options, can be effective with boomers.
- Members of *Generation X* (1965–1980) tend to take an active role in determining their care. They see healthcare providers more as educational resources to leverage their own healthcare decisions than as care providers, they are influenced by branding, and they switch providers without hesitation. Successful marketing strategies include those that suggest a high level of provider engagement while still allowing patients to take an active role in their care. Patient-centered care has special appeal for Generation X.
- Members of the *millennial* generation (1981–1996) often enter the healthcare system through urgent care or the emergency department.

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Millennials have an affinity for communication technology, such as social media and smartphone or tablet apps; however, they do not necessarily appreciate medical technology.

- Members of *Generation Z* (1997–2012) are tech-savvy and comfortable with social media and electronic messaging. They are more health-centric than other generations and more likely to seek out complementary and alternative medicine practitioners, but also less likely to have a primary care physician.

Not all attributes apply to every member of a generation, but practice leaders should consider generational differences when creating strategies to appeal to the practice's patient base or the patients it wishes to attract.

The first step in marketing a medical practice is to create a marketing plan. A marketing plan includes the following components:

1. Analysis of the relevant market and the practice's objectives
2. Key strategic issues
3. Milestones to the primary objectives
4. Budget and media decisions
5. Timeline

These components are described in exhibit 5.12.

Exhibit 5.12
Marketing Plan: Executive Summary

The executive summary of the practice's marketing plan should address the following key elements:

1. What are the dominant issues discovered in the practice's SWOT analysis?
2. What are the key objectives the practice seeks to achieve? Be specific and concise.
3. What, in one or two sentences, is the practice's marketing strategy to achieve those objectives?
4. What other issues unique to the practice should be addressed?

Answers to these questions comprise the body of the marketing plan; therefore, the executive summary cannot be written until the plan has been completed. It is a snapshot of what the practice aims to accomplish with regard to strategy and marketing.

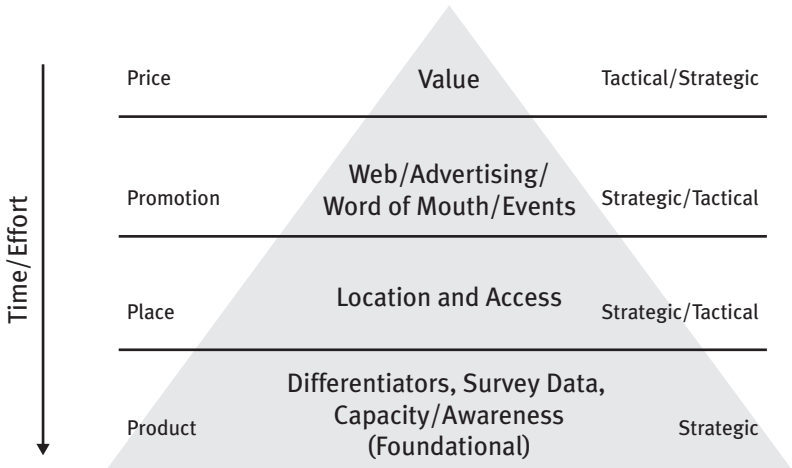
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Exhibit 5.13 illustrates the tactical and strategic nature of marketing as it relates to time and effort for each step of the strategic marketing process. The steps include the following:

1. *Mission*. The practice managers and leaders should consider the mission of the practice and be sure that marketing efforts support that mission.
2. *Situation analysis*. An analysis such as SWOT should be conducted to determine the status of the practice in relation to its competitors and the market it serves.
3. *Establishment of objectives*. What are the desired outcomes the marketing plan should achieve? An example is to increase the practice's financial stability.
4. *Strategies and tactics*. The approaches and tools to achieve objectives are determined, such as growing the practice (strategy) by adding providers and services (tactics).
5. *Evaluation*. Good management involves the evaluation of the process to determine if the objectives have been met. The evaluation should be performed against criteria established when the process was implemented. Too often, practices lack discipline in evaluating their actions and define success differently once they have implemented the plan. Evaluations should be used to adjust the tactics or even change the strategy.

The foundation of good marketing is a meaningful examination of the services offered by the practice and the practice features that differentiate the practice from others. These

EXHIBIT 5.13
Tactical and Strategic Nature of Marketing in Terms of Time and Effort for Each Step of the Process



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foundations emanate from the strategic plan and are a key to practice success. Regardless of how well promoted, conveniently located, or reasonably priced a practice is, it will not be successful unless those services offer the patients value and are in keeping with their expectations.

In general, services can be described in terms of high-involvement consumption or low-involvement consumption. Healthcare services involve high-involvement consumption, which entails complex services and products that require a substantial investment of money and time to process information or that may be risky in nature. Medical services are an example of high-involvement consumption. Low-involvement consumption involves services and products that are more routine and of less importance to the consumer; therefore, they require less information processing and are likely to be less expensive and less risky. Buying a newspaper is an example of low-involvement consumption. Medical practices must focus on high-involvement marketing to capture the nature of this complex service and engage patients in understanding the benefits of the practice.

Media Selection and Promotion

Practices can promote their services using many types of media. As with services, media are often described in terms of how much effort, or involvement, is required by the consumer to engage in the medium.

High-involvement media require a substantial amount of attention and information processing on the part of the consumer. Examples include the following:

- Direct mail
- Email direct ads
- Phone calls
- Newspaper ads
- Community events
- Internet ads, banners, and paid postings

Low-involvement media require little effort on the part of the consumer. They are often graphic or pictorial in nature and designed for a passive audience. Examples are as follows:

- Television ads
- Radio ads

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- Billboards
- Internet

Notice that the internet appears in both types of media. The nature of the internet allows for both passive and active involvement by the consumer. According to a survey completed by Eligibility.com, 89 percent of adults said they had Googled their health condition before going to the physician (Eligibility Team 2019).

The informed patient is more assertive and willing to make more demands on the clinician than the passive consumer of old. The new consumer-patient wants to be seen as an integral contributor to the care team and seeks convenience and improved access to care, including access at work, at home, and via the internet.

Another important aspect of practice promotion involves event marketing. Practices can engage in local or regional events that support a cause and provide exposure for the practice in the process. Exhibit 5.14 lists key considerations when engaging in event marketing.

The medical practice often does not take full advantage of its marketing opportunities or does not carefully weigh the costs or benefits of opportunities. This shortsighted approach results in an ineffective marketing strategy. The practice manager and leaders should thoughtfully craft its marketing plan to produce the most effective outcome. Practices may consider engaging an outside firm to provide marketing expertise (Berkowitz 2021).

Exhibit 5.14
Marketing Event Considerations

Exposure
Duration—one-time event versus multiple versus ongoing

Audience
Size and composition—who are we trying to reach?

Messaging
What are we saying, how are we saying it, and what promises are we making?

Alignment
Are we promoting the practice as a whole or a specific service?

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Discussion Questions

1. Describe and discuss the development cycle for the medical practice.
2. What are the four primary strategic alternatives?
3. What are SWOT and PEST analysis, and how are they used in strategic planning?
4. What are the four Ps of marketing?
5. Describe and discuss the various methods of determining return on investment.
6. Describe and discuss force field analysis and how it is used in strategic planning.

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CHAPTER 6

THIRD-PARTY PAYERS, THE REVENUE CYCLE, AND THE MEDICAL PRACTICE

Even small healthcare institutions are complex, barely manageable places . . . large healthcare institutions may be the most complex organizations in human history.

—Peter Drucker

Learning Objectives

- Articulate the function of medical financing.
- Appreciate the complexity of medical billing.
- Understand the medical billing process.
- Recognize the complexities of the medical reimbursement system.
- Appreciate the effects of the Affordable Care Act on medical financing.
- Understand how the Medicare Access and CHIP Refinancing Act affects the medical practice.

Introduction

If you were to ask virtually anyone in practice management about the most difficult aspects of their work, they would likely mention dealing with third-party payers and the revenue

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cycle. Many aspects of billing and receiving payment for medical services are complicated and often confusing. Medicare, Medicaid, and other government payers as well as the various commercial payers—known as *third-party payers*—all have different rules and requirements for billing medical services. New plan structures have added levels of complexity, including bundled payments, pay-for-performance strategies, and compensation changes for providers (Barr 2016; Lagarde and Blaauw 2017).

According to the National Association of Insurance Commissioners (2021), the number of health insurers filing a health statement increased to 1,096 in 2021 from 1,031 in 2019. Some of the major insurance companies are listed below (Kissell 2023):

- AARP, a product of UnitedHealthcare
- Aetna
- American National Insurance Company
- Assurant
- Blue Cross Blue Shield Association
- Cigna
- Health Net
- Highmark
- Humana
- Kaiser Permanente (the largest carrier in 2023)
- Medical Mutual of Ohio
- Molina Healthcare
- UnitedHealth Group

Role and Scope of Financing Healthcare

Private health insurance carriers are the primary mechanism through which individuals obtain healthcare coverage. For many years, the private payer system has had a great deal of influence over the way healthcare is delivered and the types of services that are provided. In fact, financing often determines who has access to healthcare, as people are reluctant to purchase services they cannot afford. Without health insurance, out-of-pocket costs are prohibitively high, not only because the individual pays the entire fee but also because patients do not receive the discounts afforded to health insurers. As a result, uninsured people seek

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less care or avoid care altogether. The converse situation can also be true: A classic RAND study established that the demand for healthcare is often higher when individuals have comprehensive health insurance (Manning et al. 1988).

The latter phenomenon is an example of what economists call *moral hazard*. If the cost to obtain medical services is relatively low, individuals will seek more care than they may need. It is important to note that the advent of high-deductible health plans (HDHPs) shifted more cost to patients, making it more likely that they will use more discretion when consuming services. Traditionally, patients who had health insurance were unconcerned about the cost because the third-party payer paid most or all of the bill. A problem with the traditional payer system is that it has contributed to rising health insurance premiums (Nyman 2004).

One way to understand this consequence is to apply the notion of supply and demand. Financing influences supply. Practices create supply if patients are willing to purchase and receive services. Not surprisingly, new services proliferate when they are covered by insurance, leading to additional healthcare costs.

The special nature of provider services, however, invites more regulation of supply in healthcare than in other industries. Much of healthcare is publicly financed, and its utilization has a direct impact on state and federal budgets, so many constituencies have an interest in controlling cost. Regulation of healthcare supply has also been implemented because patients are poorly equipped to determine their exact medical needs, making *provider-induced demand* (PID) a concern for policymakers. PID exists when the physician (or another provider) unduly influences a patient's demand for care, even when this demand goes against the physician's interpretation of the patient's best interests (McGuire 2000).

Finally, healthcare cost in relation to demand also influences the diffusion of technology. If a new technology comes to the medical practice and no third parties are willing to pay for it, that technology is unlikely to be adopted because patients are typically unwilling or unable to pay for the new service ushered in by the technology. A finding by Cain and Mittman (2002) holds true today: Practices tend not to adopt technologies that are not covered by third-party payers.

Management Decisions

By necessity, then, management decisions are influenced by payment sources. For example, if a treatment or procedure is not reimbursed as an inpatient service but is paid for as an outpatient service, that treatment will typically be delivered on an outpatient basis. This financial engineering means that services are more lucrative for the practice when offered on an outpatient basis than identical services provided on an inpatient basis. It also creates competition among providers for the revenue from services that are offered in different venues. For example, an echocardiogram can be provided in either the hospital's outpatient department or the medical practice. The vagaries and peculiarities of the reimbursement

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system, including variations in payment for the same service depending on the location of delivery, significantly affect the distribution of services because these services tend to move to the location where they are reimbursed at the highest rate.

The source of funding affects the supply of healthcare professionals as well. Providers tend to practice where they can make a living. Physicians and other healthcare professionals are more concentrated in urban areas than in rural areas. This pattern is one reason rural and other underserved areas experience shortages of healthcare professionals. Lower-economic-status patients tend to live in these areas and generate a lower wage for the practitioner than in urban or other adequately served areas. In addition, some providers are unable to use their training and skill base in rural areas, making practice in those locations infeasible. Take, for example, a pediatric neurologist. The incidence of conditions treated by this specialist is small, so a rural community would not have enough cases to justify acquiring the equipment or bringing the specialist on staff in that location.

Finally, the cost of malpractice coverage has been shown to be an important factor in the supply and location of healthcare professionals. Areas that have lower malpractice cost attract physicians more easily than those with high malpractice costs (Lieber 2014).

Insurance Concepts

Insurance offers a basic protection against risk. The fundamental questions are whether and how much insurance to purchase for a particular aspect of living in the world.

The general rule is that people should be insured against risks they cannot adequately assume by themselves. Would you insure your coffee cup? Not likely, because a coffee cup is typically so inexpensive that you would not need to cover its replacement by buying insurance should the cup become unusable, and the process of buying and selling insurance on a coffee cup would cost more than the value the insurance provides.

But what amount of risk can the patient afford to take? If you break your coffee cup, you can go out and buy a new one without much hardship. But most patients facing a $50,000 heart surgery would experience significant financial hardship without insurance to cover the procedure. Insurance is a means to protect against a risk that one cannot afford to accept for oneself.

What is risk? It is the possibility of a substantial financial loss from some event. The fact that this possibility is small is an important concept: The low probability of substantial financial loss allows insurance companies to pool risk and spread it over many subscribers, as not everyone who buys insurance will access the insurance pool.

The following definitions are helpful to know when embarking on a discussion about insurance:

- *Insured*—the individual protected by the insurance.
- *Insurer*—the agency or carrier that assumes the risk.

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- *Underwriting*—the process of evaluating the risk through actuarial procedures, which are highly mathematical and model driven. Underwriting has become less important since the passage of the Affordable Care Act (ACA) in 2010, as insurance applicants can no longer be rejected because of preexisting conditions; in the past, identifying applicants with preexisting conditions was a primary function of underwriting, allowing the insurance carrier to reject patients who would undoubtedly use their insurance and incur significant costs. Today, the primary method of underwriting is a community-based rating system that takes into account the probable utilization of the entire population of a specified area or community.
- *Indemnity plan*—a now virtually extinct type of insurance policy that indemnifies, or compensates, the insured against the cost of medical care up to the policy limits.
- *Discounted fee-for-service*—an arrangement by which payments are made to providers on the basis of a negotiated discount on the physician's usual and customary fee schedule.
- *Prospective fee schedule*—an arrangement by which payments are made to providers on the basis of a negotiated price set in advance that does not necessarily correspond to the physician's stated fees or fee schedule.
- *Retrospective payment*—a now rarely used arrangement by which payments are set after the services have been provided, such as a cost-plus arrangement whereby the physicians are paid their cost to provide the care plus a margin for profit.
- *Physician capitation*—an arrangement, also known as *per member per month*, by which payments are made to providers on a per capita basis, meaning that a payment is set for each patient at a negotiated price. The **capitation** rate is typically expressed in terms of a specific group or class of services, such as primary care, and may even be expressed in the provider–payer contract as specific Common Procedural Terminology codes.
- *Pay for performance*—an arrangement by which at least a portion of the payment made to the physician is based on the outcome of the service or the achievement of specific performance goals. Pay for performance is often provided as part of a payment arrangement in which the entire payment is not at risk for underperformance.
- *Shared savings plan*—an arrangement by which the physician is given an opportunity to share in the cost savings to the health plan, calculated using a predetermined cost savings formula and achieved by fulfilling specified conditions, including clinical performance.

Capitation
Payment to the provider as a fixed amount for each patient the provider agrees to treat, regardless of whether those patients seek care. Payment is typically based on a set number of dollars per member per month.

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- *Bundled payment*—an arrangement by which the payer provides to the physician a single payment for all activities related to delivering a specific clinical service. These clinical services are often surgical in nature, such as heart transplantation or cardiac bypass surgery. Two difficulties for practices in contracting for bundled payment are (1) convincing all the physicians and other providers to agree on the fees they will receive and (2) managing the distribution of payments to the multiple providers involved.
- *Coinsurance*—the portion of the medical claim that the patient is required to pay, usually expressed as a percentage. For example, a policy that calls for 20 percent coinsurance requires the patient to pay $20 of a $100 fee.
- *Deductible*—total amount of payment required by the patient for all services before the insurance plan begins to pay for any services. For example, if the patient's plan has a $1,000 deductible, the patient must pay the first $1,000 of services before any payment is made by the plan. Once the $1,000 deductible has been met, the patient still pays any coinsurance and copayment (see below) specified by the plan (as the deductible feature operates independently of copayments and coinsurance), and the plan pays the balance of the fee.
- *Copayment*—a fixed portion of the bill that the patient is required to pay for a service. For example, the policy may require the patient to pay a $20 copayment for each office visit. This amount is payable in addition to the coinsurance and deductible as specified by the policy.
- *In-network*—a term referring to a physician who has negotiated fees with the health plan and has by contract agreed to accept this fee as full payment.
- *Out-of-network*—a term referring to physicians who have no prior agreement with the health plan and therefore are not required to accept the plan's reimbursement as full payment for their services. Some plans do not reimburse out-of-network providers at all.

Types of Health Coverage

Private Commercial Insurance

The majority of Americans obtain their healthcare coverage through their employer, and at one time, most policies provided coverage for virtually 100 percent of medical costs. This type of insurance is known as first-dollar coverage and arose from post–World War II competition for employees as a result of wage and price controls. In the early 1940s, a series of rules encouraged employers to provide benefits to employees in lieu

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of increasing their salaries. This approach to attracting and compensating employees was popularized by a court decision that made health insurance premiums tax deductible (Scofea 1994).

Some observers argue that the concept of first-dollar coverage is flawed because most people can absorb some amount of healthcare costs on their own. First-dollar plans also proved to be unsustainable, as patients' demand for healthcare services outmatched insurers' ability to cover all health-related expenses over the long term (Shortridge et al. 2011). Gradually, deductibles and coinsurance were added as a demand-side regulator in an attempt to reduce rapidly increasing healthcare costs (Hoffman 2006).

High-Deductible Health Plans

HDHPs have been offered by insurers for many years; however, they have only become popular in recent years as the cost of insurance has continued to escalate and as both employers and patients have sought ways to reduce their insurance costs. In general, as the name implies, these plans provide insurance protection to the insured but carry a significant deductible that must be funded by the patient or responsible party. These deductibles are currently subject to limits imposed by the ACA. In 2023, the maximum allowable deductible for an individual plan was $9,100 (Cox et al. 2022).

Health Savings Accounts

Health savings accounts (HSAs) are vehicles offered by employers that allow employees to set aside tax-free funds for future medical expenses. The patient-employee establishes and owns the account; therefore, it is portable (i.e., the money belongs to the employee even if they leave the employer) and is never taxed as long as the funds are used for specified medical and health services (although the services and products for which the money is used may be taxed). Employer contributions are optional.

Health Reimbursement Accounts

Similar to HSAs, health reimbursement accounts are funded with pretax dollars that can be used to pay for future medical expenses. In contrast with HSAs, health reimbursement accounts are owned by the employer that establishes them; therefore, they are not portable for the employee.

The Affordable Care Act and Commercial Insurance

The ACA is discussed in other sections of this text; here, the discussion highlights some of the features that the ACA has brought to the commercial insurance environment. For

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the most part, the ACA does not affect Medicare, Medicaid, or other government payers. (In its original form, the ACA sought to expand Medicaid coverage for the working poor who could obtain coverage under its commercial provisions; however, this part of the law was struck down by a US Supreme Court ruling in 2012; see Rosenbaum and Westmoreland 2012).

The ACA asks states to develop insurance exchanges, which allow commercial carriers to provide a competitive marketplace for individuals and families to purchase health insurance that is not available to them in their workplace or by other means. The ACA also provides subsidies to improve the affordability of health insurance on a sliding income scale.

Commercial insurance carriers play a major role in carrying out the terms of the ACA through their participation in the healthcare exchanges. These companies offer qualified plans to individual purchasers, who can shop and compare the plans to determine which best fits their needs.

Many states chose not to establish healthcare exchanges of their own. In those situations, the federal exchange, HealthCare.gov, provides a marketplace for those seeking to purchase coverage. In 2023, 18 states had their own state-based exchanges, 3 had their own exchanges but used the federal platform, and 30 used the federally facilitated marketplace (Kaiser Family Foundation 2023b).

Four levels of plans are typically available on the exchanges: platinum, gold, silver, and bronze. Each plan covers a specified percentage of the insured patient's costs (Blue Cross Blue Shield of Michigan 2023):

- Bronze—60 percent coverage and 40 percent coinsurance up to the out-of-pocket maximum
- Silver—70 percent coverage and 30 percent coinsurance up to the out-of-pocket maximum
- Gold—80 percent coverage and 20 percent coinsurance up to the out-of-pocket maximum
- Platinum—90 percent coverage and 10 percent coinsurance up to the out-of-pocket maximum

The out-of-pocket maximums are defined under the ACA. In 2023, coinsurance for ACA health insurance exchange plans could not exceed $18,200 for a family plan and $9,100 for an individual plan (HealthCare.gov 2023a).

The ACA also defines specific services that must be covered in these packages, referred to as *essential health benefits*. This provision is designed to make sure that everyone participating in the exchange has access to sufficient coverage. Individual and small-group

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plans must include items and services in the following ten categories (HealthCare.gov 2023b; Small Business Majority 2019):

- Ambulatory patient services
- Emergency services
- Hospitalization
- Pregnancy, maternity, and newborn care
- Mental health and substance use disorder services and behavioral health treatment
- Prescription drugs
- Rehabilitative and habilitative services and devices
- Laboratory services
- Preventive and wellness services and chronic disease management
- Pediatric services, including oral and vision care

Exhibit 6.1 lists the average deductibles for the four plan categories available on the exchanges. For individuals who purchase bronze and silver plans, deductibles are significantly higher than they typically were in the past when offered through an employer. As a result, practices may experience a significant increase in bad debt, as the average patient encounter effectively has no coverage under the bronze and silver plans.

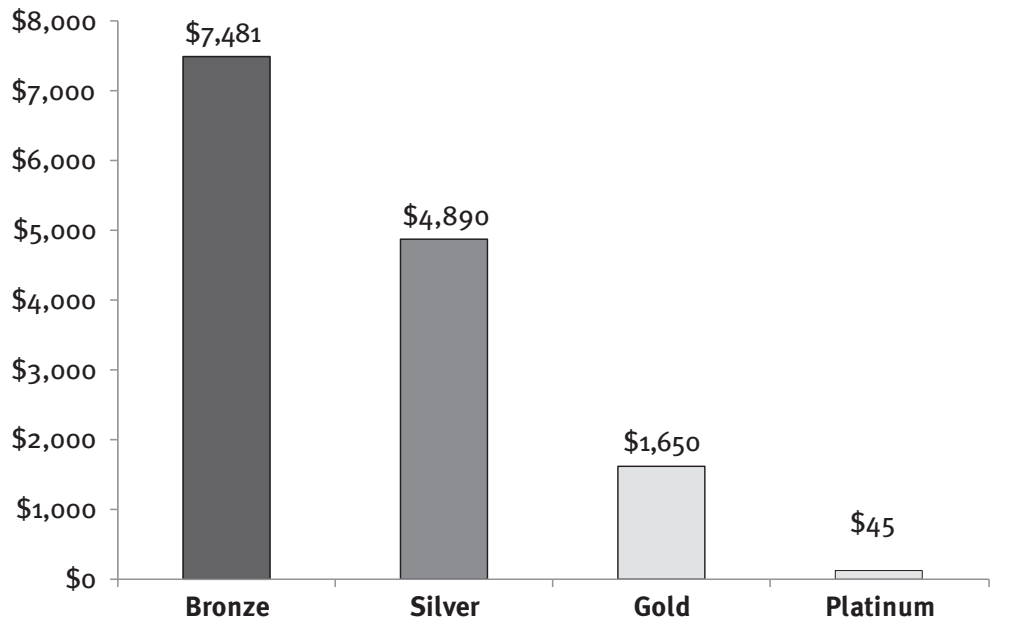
According to the 2015 Gallup Healthways Well-Being Index survey, the ACA has had a significant impact on the number of uninsured in the United States, producing significant increases in lives covered by Medicaid as well as the number of individuals purchasing plans for themselves and their family members (Gallup 2015).

The 2020 US Census provided a great deal of information on Americans' health insurance coverage. Some highlights include the following (Keisler-Starkey and Bunch 2022):

- More people were insured in 2021 than in 2020. In 2021, 8.3 percent of people, or 27.2 million, had no health insurance at any point during the year, representing a decrease in the uninsured rate and number of uninsured from 2020 (8.6 percent or 28.3 million).
- In 2021, private health insurance coverage continued to be more prevalent than public coverage (e.g, Medicare and Medicaid), at 66.0 percent and 35.7 percent, respectively.

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Exhibit 6.1
Average Medical Deductible in Plans with Combined Medical and Prescription Drug Deductibles, 2023



Source: Kaiser Family Foundation (2023a).

- Employer-based insurance was the most common type of coverage, covering 54.3 percent of the population for some or all of the calendar year, followed by Medicaid (18.9 percent), Medicare (18.4 percent), direct-purchase coverage (10.2 percent), TRICARE (2.5 percent), and coverage through the US Department of Veterans Affairs and the CHAMPVA program (1.0 percent).
- Overall, public coverage increased between 2020 and 2021. In 2021, 35.7 percent of people held public coverage for some or all of the year, a 1.2 percentage point increase from 2020.
- Between 2020 and 2021, the rate of Medicaid coverage increased 0.9 percentage points to cover 18.9 percent of Americans.
- The uninsured rate among children under the age of 19 decreased 0.6 percentage points to 5.0 percent between 2020 and 2021, driven in part by an increase in public coverage.
- In 2021, 7.9 percent of full-time, year-round workers had public health insurance, up 1.8 percentage points from 2020. Among workers employed less than full-time, year-round, the percentage with public coverage increased 1.6 percentage points to 22.6 percent during this period.

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These data indicate a changing third-party payment landscape in which levels of coverage for most of the population are increasing. Private health insurance continues to be the predominant source of third-party coverage.

An Illness System, Not a Health System

Traditionally, the US healthcare system has focused on treating illness. Today, most observers recognize that it should focus primarily on creating wellness. Fee-for-service plans, at least until the passage of the ACA, did not cover wellness services to any great degree. And, as discussed earlier in this chapter, if insurance does not cover a service, most people are reluctant to purchase it; patients have not traditionally purchased preventive services because they were not covered under their healthcare plans. The ACA requires that preventive services be 100 percent covered. However, those services remain underutilized, as patients are not accustomed to having these services covered and, frankly, because a culture of prevention has not been realized in the US healthcare system (Adepoju, Preston, and Gonzales 2015). This remains true because of both an information gap and an implementation gap, as providers do not always prioritize preventive services (Levine et al. 2019).

The other side of the services coin is that so-called sick care is more lucrative for medical practices and hospitals than well care. Services and procedures to treat illness cost more to provide than preventive services; therefore, providers have more to gain financially from delivering sick care. This point is not made to suggest that physicians and hospitals are acting with nefarious intentions. Rather, the policies and payment methods of the US healthcare system have valued and encouraged sick care over prevention. This unintentional bias toward sick care is one reason why current reforms focus on keeping people well and creating incentives and payment structures that help keep people healthy by encouraging well care. Accountable care organizations (ACOs) and value-based purchasing, discussed later in this chapter, are two examples of delivery and reimbursement structures that are designed to encourage well care.

Flaws in Fee-for-Service

The fee-for-service system has no controls over utilization, which creates a moral hazard on both the provider side and the patient side. This is a very important concept in medical economics: Because insured patients do not pay the cost of care directly, they tend to use more services than they need. Consumer-directed health plans reduce moral hazard because much of the cost is paid out of pocket by those consuming the services.

Think about the concept this way: If I offer to buy you a car and say that I will pay the cost regardless of which car you choose, would you buy the cheapest car available? The answer is most likely no. You might not buy the most expensive car, but you would buy

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the car that you like the most or perceive to be the best. In the same way, overutilization of specialty care is prevalent in the fee-for-service world.

PID is another important economic concept. As noted earlier, the provider's pen is the most expensive instrument in the healthcare system because the provider orders or provides most of the services that patients receive. This is how the system operates, but it is not the ideal operational scenario, because it encourages providers to order and deliver services to benefit their own interests and not the interests of their patients. Although the vast majority of providers are honest and do not intentionally promote the overutilization of services or make decisions simply for their own financial gain, the absence of impediments to over-ordering—or of any incentives not to do so—supports supplier-induced demand. The fear of litigation has also contributed to overutilization, as providers worry they could miss an underlying health issue and be sued, even though the probability of a positive result on a test might be small. Compounding these physician-oriented factors, patients often want more, not less, service, and they equate the level of service with the degree of quality or healthfulness (Segal 2012).

Insurance companies absorb the inefficiencies of the US healthcare system by raising premiums. Insurers often determine their costs using actuarial methods and then pass those costs along to the patients. But simply passing along a higher premium only covers up the most severe problems with fee-for-service. In fact, this approach to insuring patients is more of a cost management system than a managed care system. The price of overutilization is hidden in the rising cost of patients' insurance premiums. In this way, the cost of operational inefficiencies that otherwise should be addressed is passed along to the consumer under the guide of rising healthcare costs. While healthcare costs are, in fact, increasing more rapidly than inflation, the rate of increase has slowed. Health spending in the United States increased by 2.7 percent in 2021, to $4.3 trillion or $12,914 per capita. This growth rate was substantially lower than 2020's 10.3 percent (AMA 2023c).

Managed Care

Managed care has fundamentally transformed the delivery of healthcare. Other countries have adopted some of its features because they determined that fee-for-service care does not serve their populations well.

In the United States, early attempts at changing payment mechanisms to control cost were not well received because they effectively restricted access to care—and, as we know, Americans do not like to have restrictions placed on their decision-making. As managed care has evolved, it has not succeded in controlling costs as it was originally expected to.

Some core features of managed care are as follows:

- Information technology is a primary means by which to integrate the functions of billing, collection, and account management.

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- An insurance mechanism is used to provide payment coverage and benefit design.
- A main goal is to streamline delivery of and payment for care.
- It formally controls patient utilization.
- It offers behavioral incentives to providers and patients to change behaviors that will decrease cost and improve health, such as placing more emphasis on wellness and prevention.

Types of Managed Care Plans

The most prominent types of managed care plans are health maintenance organizations (HMOs), **preferred provider organizations (PPOs)**, and **point-of-service (POS) plans**.

HMOs are organizations that provide care to a specific group of patients for a contracted rate of payment. Two types of HMOs predominate in the market:

- *Open panel*—Under this arrangement, a physician and other providers may maintain an independent practice contract with the HMO (in-network providers) to see HMO patients as well as non-HMO patients. Patients are usually required to select a primary care physician among those contracted by the HMO and may seek care with that HMO's other physicians and providers as well. In some cases, an open-panel HMO allows the member to receive care from an out-of-network provider, but benefits from the plan are usually paid at a lower rate.
- *Closed panel*—Under this arrangement, the physicians and other providers typically are employees of the HMO or under exclusive contract to see only HMO patients. The patient is required to seek all care in-network with the HMO and, except for special circumstances, such as an out-of-area emergency, may receive no plan benefits if they go out-of-network for care.

The exact structures of organization and benefit packages vary widely and may differ from these general definitions.

PPOs are networks, or groups of providers, that contract with an insurance company or other third-party payer to provide services at an agreed-upon, usually discounted, price, which may be paid on a fee-for-service or capitated basis. A PPO usually is not exclusive to any health plan and, in fact, may contract with several different payers or patients as well. In many ways, PPOs resemble open-panel HMOs.

Preferred provider organization (PPO)
A health insurance plan with an established provider network ("preferred providers") that covers maximum benefits when members visit a preferred provider.

Point-of-service (POS) plan
A health insurance plan in which members do not have to choose how to receive services until they need them. Most commonly, the term applies to a plan that enrolls each member in both an HMO (or HMO-like) system and an indemnity plan. These plans provide different benefits depending on whether the member chooses to use plan providers or go outside the plan for services.

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POS plans are hybrids of HMOs and PPOs. They allow a wide range of options to the patient in seeking care, but patients pay for these benefits at different levels, depending on whether the service is delivered by an in-network provider.

Evolution of Managed Care

How did managed care come about? Although much history and many noteworthy events have occurred in the development of managed care, one of the first applications of managed care began in 1929 at Baylor University. Baylor may have been the first organization to pay for the healthcare of teaching staff using what we would now call a "prepayment" model. The university created a capitated contract with local providers, stating that patients were to pay a certain sum (a capitation) at the beginning of each month in return for receiving medical care (Momanyi 2010). Some people have asserted that this contract was the precursor to the Blue Cross Blue Shield program.

Sometime after Baylor's adoption of this model, other employers became active purchasers of health insurance using managed care mechanisms and the managed care companies operating at the time. As a result, employers began to wield enormous buying power. In response, different types of organizations emerged to balance the supply and demand of care, leading to organizational integration of payment with delivery.

The supply-and-demand economics of managed care works like this: Supply-side regulators can create or restrict the availability of services. The certificate-of-need rules, for example, are a type of supply-side regulator. Demand-side regulation, such as actions to increase the cost of a service or to make a service less available, thereby decreasing patient demand, is a function of managed care through the implementation of copayments and deductibles.

Managed care began to grow in response to the flaws in the fee-for-service system. The cost appeal of managed care in the early days was significant. Costs were lower because most of the contracts that were in place provided deep discounts to billed charges and imposed some restrictions on access. Most managed care organizations (MCOs) use a large provider panel, which may include practically every provider in the community. Subtle differences may be seen among MCO contracts, but the terms are similar.

The fact that most provider contracts are managed care contracts in some sense weakens the economic position of the provider because the ability to access a large pool of patients—say, the members of a Blue Cross Blue Shield plan—requires financial compromise. A practice that does not have access to Blue Cross Blue Shield patients will likely have few patients. The practice's desire to include these patients gives the MCO an advantage in negotiations.

The only large, open-access insurance plan operating today is Medicare. Traditional Medicare beneficiaries can visit any provider they choose as long as that provider accepts Medicare, which most do. Medicare pays any enrolled provider the allowable fee-for-service.

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Under Medicare Part C, private insurance replaces traditional Medicare with a commercial plan that provides managed care benefits to the Medicare recipient. The advantage for the recipient is a reduced-cost plan that may have expanded benefits, but the recipient is also required to follow the restrictions of the plan, which may include a restriction on which providers the recipient can see.

Managed care plans, including Medicare Part C, often operate as PPOs. These physician networks agree to care for the insurer's patients at a set price and under certain terms and conditions. Medicare and other government insurance programs are discussed in more detail later in this chapter.

Prepaid Plans and the HMO Act

A significant piece of legislation that enabled the development of managed care was the Health Maintenance Organization Act of 1973, which provided federal funds to start new HMOs. This law was akin to the ACA at the time, as the healthcare industry was attempting to figure out ways to control costs and provide better care (Mueller 1974). The law introduced a new way of thinking about care delivery and prompted providers to think about prevention as a model.

Integration of the Quad Functions

A true managed care environment involves the integration of the "quad functions" of healthcare (Shu and Singh 2017):

- Delivery of healthcare service
- Financing
- Insurance
- Payment

In a managed care environment, financing is negotiated between employers and the MCOs, such that the quad functions are wrapped up into one mechanism. This system is a continuum in that the functions and structures overlap. Different degrees of overlap are evident in the US healthcare delivery system.

For example, for the insurance function, the MCO assumes the risk, as an insurance company does. Thus, in theory, the need for insurance companies has been eliminated by the MCO system. However, traditional insurance companies such as Blue Cross Blue Shield, UnitedHealth Group, and Aetna have shifted their focus to sell mostly managed care products. In this way, the MCO and the insurance company are becoming

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indistinguishable, so the practice manager likely does not need to spend too much time determining their differences.

Another managed care feature is shared risk, such that the financial risk is often shared between the MCO and the provider. Risk sharing has been used in earlier financing models, via capitation. Many capitation or similar prepayment arrangements will be seen in the future as payment mechanisms evolve and new systems emerge.

ACOs, which are defined in the ACA, set a foundation for MCOs that assume more financial risk for patient care. ACOs are now responsible for more of the cost of patient care and are required to place more focus on quality and outcomes than in the past to be reimbursed.

On the delivery side, a comprehensive array of services is needed for an organization to function as an MCO. Most MCOs contract with their own providers, although some large medical practices have created viable MCOs through organic growth and acquisitions, developing the extensive menu of medical services needed to support the MCO structure. Kaiser Permanente and Geisinger Health are two examples of large medical practices that are also MCOs. In these organizations, the physician practices serve as both the insurers and the providers of services. They collect premiums from companies and individuals, and, in return, they deliver the care. The insurance functions of their business in the MCO perform the actuarial work and other administrative functions.

Cost Control Methods

A number of mechanisms have been devised to decrease costs in the managed care system. Chief among these are restrictions on the choices that beneficiaries have, particularly the providers that patients are allowed to see.

Limiting provider choice is seen as a controversial approach. Some physicians may be more economically efficient than others. By visiting the less economically efficient physician, patients may be causing additional resources to be used. Notably, these more expensive physicians are not necessarily the higher-quality physicians.

Gatekeeping

The gatekeeper concept is one mechanism that is used in managed care to discourage patients from visiting any specialist they choose, also known as self-referral, potentially to nonpreferred specialty providers. The gatekeeper in this model is the primary care physician (PCP). This approach has been villainized because it requires the patients to visit their PCP before going to a specialist.

In many ways, the gatekeeper system makes sense from a care perspective, as many patients do not fully understand their medical needs. Why not see the PCP first to discuss

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the possibility of additional care? The reason for patients' dissatisfaction with the gatekeeper system is rooted in the way it is carried out. Many patients feel disrespected by this restriction, as if they have no idea what they need for their own health.

The patient-centered medical home (PCMH), a concept that is argued to be more attuned to patients' rights and autonomy, also employs the gatekeeper concept. The patient begins addressing a medical concern with the medical home and then moves along to an appropriate specialist chosen on the basis of the medical home's determination. The difference between the PCMH and the MCO is that the medical home concept is founded on a patient-first notion and is not simply a mechanism to reduce referrals. Patients get to know their providers, and the providers get to know their patients, making the PCMH the preferred place for medical care. The patient comes to see the medical home as the most appropriate place to go for any medical need, knowing that their best interests will be served in the long term.

Case Management

Case management is another managed care concept that, if properly executed, can be a great benefit to a patient undergoing a complex series of medical treatments. Case managers facilitate recovery by ensuring that patients are in a safe and appropriate environment. For example, in the case of a hip replacement, the patient's case manager may evaluate the patient's home to make sure it is a safe and proper environment in which to receive postsurgical care. The case manager may remove loose rugs on the floor to prevent falls, verify that someone will be in the home to help the patient, make sure a path is clear to the bathroom, and take other precautions. Those patients whose home is not safe for the patient's recovery, as is often the case with elderly people, may need to be admitted to a skilled nursing facility or a supportive environment. In the wake of continued cost escalation, new efforts to develop additional home-based services and innovative technologies to monitor patients in the home are becoming commonplace.

Chronic Disease Management

Disease management is an important process for patients with chronic disease that has been used over the past few decades by providers and practices. For example, the long-term treatment and care of an individual with diabetes, a high-incidence disease in the United States, requires a provider who can monitor and help the patient manage the disease over a long period so that it does not spiral out of control. Disease management is becoming common, and it is proving useful in healthcare environments to both improve care and manage the rising cost of chronic disease.

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Utilization Review and Tiered Benefits

Utilization review
An organized procedure carried out through committees to review admissions, duration of stay, and professional services furnished and to evaluate the medical necessity of those services and promote their most efficient use.

Utilization review is typically a retrospective look at what care has been provided and whether it has made appropriate use of services on the basis of trends, benchmarks, customary practices, and other metrics considered in determining the quality of healthcare.

Practices are often profiled by MCOs through utilization review. Some physicians simply "cost more" than others because of the way they practice without necessarily demonstrating a higher quality of care. Because of this differentiation, MCOs use payment tiers. Tiers are created by ranking physicians according to their costs and quality. The payer may provide reimbursement commensurate with the practitioner's rank. For example, physicians in tier 1, the highest tier, may be paid 100 percent of the allowable reimbursement for the services they provide. A tier 2 physician who ranks higher in costs and lower in quality may only be paid 80 percent of the allowable reimbursement; a tier 3 physician may be paid at an even lower rate. Some plans allow for no payment to be provided if certain benchmarks are not met.

This tier structure gives the patients an incentive to choose physicians who have demonstrated, according to their profile, that they provide higher quality at lower cost. This approach is controversial because the validity of the structure depends on an accurate profiling system, which some observers believe is not always in place.

Efficiencies and Qualifications of Managed Care

Much of the discussion about managed care thus far has been provided to help the reader understand its intended enhancements to the healthcare system. Now, we move on to consider how managed care has performed. Fundamentally speaking, the managed care model has not worked as smoothly or as well as expected. Instead, managed care quickly became "managed cost."

To say that managed care is efficient offers an idealized view of the model. It has not realized all the envisioned benefits or kept all the promises that some observers claimed it would. That said, efficiencies have occurred under managed care. It eliminated insurance and payer intermediaries and brought them together under one organization, the MCO. It also implemented risk sharing with providers, which helped reduce PID. For example, a physician practice that receives only a set sum of money each month to care for a patient tends to think twice about whether a particular test is necessary.

Of course, in addition to the inefficiencies ushered in by managed care, discussed in the next section, one consequence of capitation is that it creates incentives *not* to provide a service that is needed. Providers are human, and we all respond to incentives that may influence us to make a decision that, in an ideal world, we would not make (Johnson 2014). Prudent delivery of healthcare—thinking about what is best for the patient—is the goal. MCOs produced the first real effort to collect data and manage the care of patients on the basis of that evidence. However, the amount and type of data, and the systems to support

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their analysis, are inadequate through the MCO, and the decision-making required for good, patient-based judgments may suffer.

Inefficiencies in Managed Care

One major inefficiency of the managed care financing system is the level of complexity for providers who contract with multiple plans. In addition, the MCO's medical policies are often at odds with what the provider perceives to be in the best interest of the patient, leading to denial of payment. Furthermore, appeals of payment denials can be lengthy. New organizational structures and payment mechanisms may help align services and payment systems in a way that reduces the complexity and increases the efficiency of the system.

Government Health Insurance Programs

The Medicare and Medicaid programs were created by an amendment to the Social Security Act in 1965 as Titles XVIII and XIX, respectively. These programs were part of the Great Society initiative of President Lyndon B. Johnson's administration.

Prior to 1965, the only health insurance coverage available was through private insurers, with the exception of a few targeted government programs that provided coverage for the poor and elderly. Medicare and Medicaid represented a major step forward in the "Great Society," the vision of the Johnson administration. Its importance in providing medical services for the poor and elderly is hard to overestimate. Following the implementation of Medicare and Medicaid, these underserved groups had access to healthcare services as never before, and the availability of services was no longer left to the charitable inclinations of the providers. Because more people were demanding services from the delivery system, Medicare and Medicaid spurred more rapid development of medical services.

In general, Medicare covers those who are aged 65 or older or who have a permanent disability. Medicaid is a means-tested program that is intended to cover the poor (Cohen and Ball 1965). Exhibit 6.2 lists some important features of the Medicare and Medicaid programs.

Medicare

Medicare comprises four distinct components. Part A provides coverage for inpatient care and some skilled nursing and rehabilitation facility charges, but typically it does not pay for medical practice services. Any US resident who has worked for at least 40 quarters and paid payroll taxes into the Health Insurance Trust automatically receives Medicare coverage after reaching age 65. Part A is subject to an annual deductible ($1,600 per benefit period in 2023).

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Exhibit 6.2 Features of Medicare and Medicaid

Feature	Medicare	Medicaid
Eligibility	Those over age 65 and the permanently disabled; no means testing	Means tested, which varies by state
Funding	Payroll taxes and premiums	State and federal funding
Benefits	Standardized throughout the country	Vary by state, with minimum federal standards; states may apply for waivers to create innovative programs

Part B provides coverage for outpatient services, including medical practice services. It is a voluntary program funded through Part B premiums, which are adjusted on the basis of household income. In 2023, the standard premium for Medicare Part B was $164.90 per month. Part B typically pays 80 percent of charges, leaving 20 percent to be paid by the patient. Part B is also subject to an annual deductible ($226 per benefit period in 2023).

Medicare Advantage Program established by the Balanced Budget Act of 1997 whereby an eligible individual may elect to receive Medicare benefits through a managed care organization. Formerly called Medicare+Choice and still informally known as Medicare Part C.

Part C, also known as **Medicare Advantage**, came into effect with the 1997 Balanced Budget Act. Part C does not add new benefits to Medicare Parts A and B but packages them in a managed care plan, which is offered by a number of insurance companies. Part C often combines Parts A, B, and D and Medigap coverage (see the next section) under one umbrella policy.

Part D provides coverage for prescription drugs and requires payment of a monthly premium (based on the recipient's income) to Medicare in addition to Part B premiums. This coverage is offered through stand-alone plans and through the Medicare Advantage program.

Medigap Coverage

Medigap A supplemental health insurance policy sold by private insurance companies that is designed to pay for healthcare costs and services not paid for by Medicare or any other private health insurance benefits.

Even when all four Medicare programs are used together, they do not cover 100 percent of healthcare costs for beneficiaries. Many Medicare recipients choose to purchase additional coverage, known as **Medigap** coverage, which pays the Part A deductible and the 20 percent that is not paid by Part B. This coverage is typically purchased from a commercial insurance carrier or managed care company.

Medicaid

Medicaid, codified in Title XIX of the Social Security Act, is primarily intended to provide coverage for services to low-income US residents. It is a means-tested program that

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is operated jointly by the federal and state governments. Because of this joint-funding arrangement, Medicaid benefits vary widely from state to state, although they are subject to a minimum threshold established by the federal government.

Eligibility requirements for Medicaid were relaxed during the COVID-19 public health emergency that was in effect from January 31, 2020, until May 11, 2023, to expand access to coverage for vulnerable populations. In March 2020, Congress passed the Families First Coronavirus Response Act, which included a requirement that Medicaid programs keep beneficiaries continuously enrolled through the end of the COVID-19 public health emergency in exchange for enhanced federal funding (Dolan et al. 2020). Three years later, as part of the Consolidated Appropriations Act (CCA) of 2023, the US Congress delinked the continuous enrollment provision from the public health emergency and ended the continuous enrollment requirement on March 31, 2023. The CAA also phased down the enhanced federal Medicaid matching funds through December 2023.

As a result of the continuous enrollment provision, Medicaid enrollment grew by 6.1 percent compared with before the COVID-19 pandemic, adding 4.3 million enrollees. In 30 states, enrollment in managed care plans increased by about 5 million (11.3 percent) from March to September 2020, keeping the overall insured rate steady in spite of employment loses (McDermott et al. 2020).

States were permitted to resume disenrollments in April 2023 but had to meet certain requirements to be eligible for the enhanced federal funding during the phase-out (Cubanski et al. 2023; Tolbert and Ammula 2023). The end of the continuous enrollment provision had the effect of putting millions of people at risk of losing their Medicaid coverage and reversing the gains in coverage achieved during the pandemic. According to an analysis by the Kaiser Family Foundation (2023c), 8 million to 24 million people across the United States were expected to be disenrolled from Medicaid during the unwinding of the continuous enrollment provision.

On a more positive note, as of 2023, 41 states and the District of Columbia had expanded or were planning to expand their Medicaid programs under the ACA. South Dakota and North Carolina were the latest to do so (Rudowitz et al. 2023).

Dual Eligibility

Low-income individuals who qualify for Medicare may also qualify for Medicaid. If they receive both Medicare and Medicaid benefits, they are considered *dual eligible*. Typically, Medicare is the primary payer for their medical services, and Medicaid pays the deductibles, coinsurance, and other medical expenses, much as a Medigap policy does.

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Other Federal Health Insurance Programs

Other federal health insurance programs offer insurance coverage for specific populations. Two of these programs, the Indian Health Service (IHS) and TRICARE, are discussed here.

Indian Health Service

The IHS is the principal federal healthcare provider of a comprehensive delivery system for American Indians and Alaska Natives. Its mission grew out of the special government-to-government relationship between the US federal government and federally recognized Indian tribes (IHS 2023).

TRICARE

TRICARE is a program sponsored by the federal government that provides a wide range of health services to active and retired members of the military and their families. Because private practitioners are often involved in the care of military personnel and their families, many practices need to bill and receive reimbursement from TRICARE for services provided. A solid understanding of the TRICARE system is helpful for managers of these practices. Please visit www.tricare.mil for more details and resources.

The Revenue Cycle

The revenue cycle for a medical practice is illustrated in exhibit 6.3. Whether for a small proprietary practice or a large multispecialty practice inside or outside a large healthcare organization, most of these activities are performed by all practices because the processes represented in the revenue cycle do not change according to the size of the organization. The technology and procedures may differ, but the steps in the process do not.

The revenue cycle is focused on two fundamental aspects of practice management. In managing the revenue cycle, the practice aims to (1) increase collections and the collectibility of patient revenue sources and (2) improve its cash position. To achieve these goals, the practice must focus on timeliness in performing all activities, as well as the following:

- Pricing, which likely relates to how well the practice has negotiated its managed care insurance contracts
- Coding the medical services
- Capturing charges correctly
- Managing the denial of payment by insurance carriers and MCOs
- Managing any underpayment of billed services

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- Having a properly integrated fee schedule system that is maintained on a regular basis
- Managing **accounts receivable**

Accounts receivable Amounts owed to the practice by its customers.

Much of this work depends on having properly trained staff and a modern practice management system that can handle many of these processes electronically. Some practices outsource receivables management to a firm or an individual who specializes in that activity. This decision often depends on the size of the practice and its ability to attract qualified accounts receivable staff.

Scheduling and Initial Patient Contact

In most cases, the patient makes the first contact with the physician practice. In some instances, the patient is referred from another practice and that organization may initiate

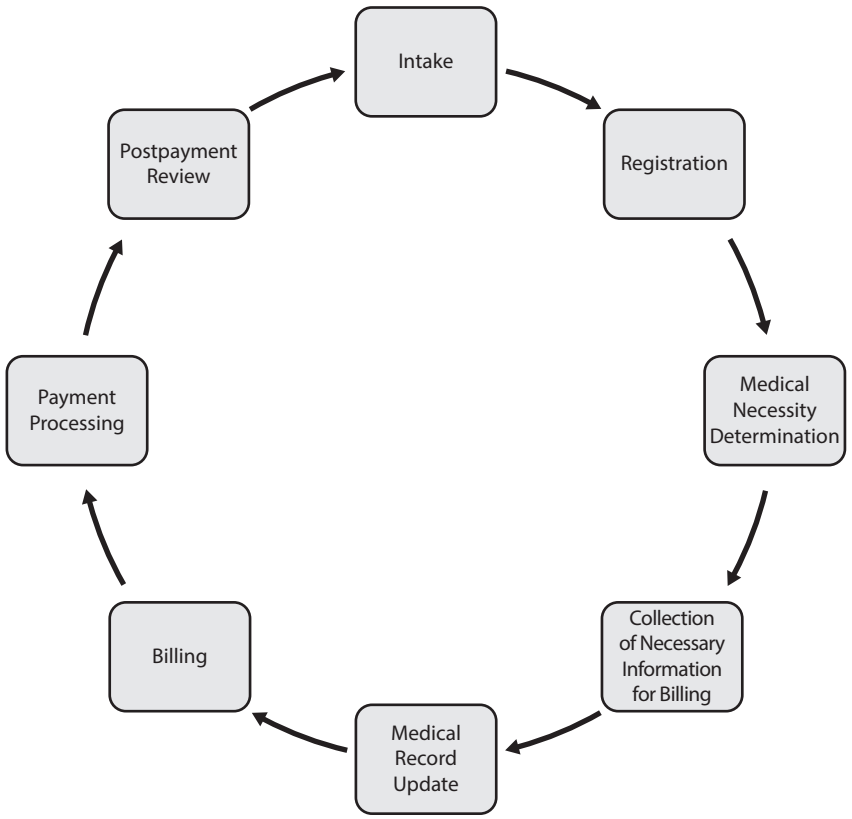


Exhibit 6.3 The Revenue Cycle

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the appointment process. Patient contact occurs in three stages: registration, check-in, and provision of services.

Patient Registration

The registration process is as follows:

1. Patient intake, or preregistration, is performed prior to the patient's visit to collect all necessary medical and insurance or other payment information. Some insurance plans require preauthorization for services, which must be received before the services are provided. The preregistration process helps ensure a smooth visit.
2. Registration takes place at the time of the patient visit. Relevant patient information is gathered, including demographics, such as age; address and other contact information; emergency contact information; and payment information, such as insurance and other potential forms of payment.

Often the registration process also includes collecting the patient's medical history and other relevant background information about their medical condition.

During this registration process, the practice should assess the patient's financial status and help the patient access assistance if needed. Some activities that may occur in assisting patients in this way include the following:

- Helping the patient understand the expectation for payment and the potential liability if they fail to pay for services. As we have discussed, healthcare is often very expensive, and those who are new to accessing the healthcare system may be unaware of the extent of their liability. The need for this type of patient education is increasing, even for those with health insurance, because the number of HDHPs has grown.
- Determining whether the patient is eligible for any charity or discount programs.

The practice may also offer a plan that allows patients to make periodic payments for the services provided.

Patient Check-In

Check-in is a straightforward process in which the patient is received by the practice. Information is verified, including the patient's identity, and any updates to patient information are made.

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Provision of Patient Services

In most practices, during this stage, the patient is escorted by one of the clinical personnel to the appropriate service or to the examination room. A critical step in the revenue cycle depends on the proper capture of charges for services provided. Charge capture is usually performed either by completing a form called a "super bill" or by using an electronic system to capture the charges into the medical record.

The next section discusses coding as part of charge capture.

Coding and Claims

The proper coding of the services provided by a medical practice is crucial not only to maximize legitimate revenue but also to avoid compliance issues and concerns. Medical coding specialists are valuable members of the practice and provide expertise in managing the preparation of insurance claims. Any practice is well served by ensuring that the medical coders who prepare claims for the practice, whether internal or external, are certified by the American Association of Professional Coders and hold the designation Certified Professional Coder, indicating that they have successfully completed the training and certification process required of a professional coder (AAPC 2023).

Also of note, every practice should have systems in place to audit and verify that all charges have been captured and that they have been captured correctly.

International Classification of Diseases

The International Classification of Diseases (ICD), now in its 11th edition (ICD-11), is a system used by US healthcare providers to record and code all symptoms discussed, diagnoses made, and procedures performed during patient visits. ICD-11 replaced ICD-10 in 2019 and consists of 120,000 procedure and diagnosis codes that are three to seven characters in length.

ICD-10 included about 14,000 distinct diagnoses. ICD-11 has more than 55,000 unique codes to represent a more comprehensive list of diagnoses. This update represents a major improvement for the health and wellness industry as it recognizes several common diagnoses that were previously overlooked in ICD-10, such as gaming disorder, which is defined as a pattern of persistent or recurrent gaming behavior, digital, which may be online or offline. ICD-11 also includes more diagnoses for eating disorders and mental health disorders.

These changes affect professionals in most healthcare specialties; however, mental health providers will see the largest change. The addition of more than 40,000 new codes means that practices have a more complex system to learn and implement. Billing professionals and providers will need training to properly implement this significant change (Harrison et al. 2021).

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Current Procedural Terminology

Current Procedural Terminology (CPT) is a coding product that is maintained and sold by the American Medical Association (AMA 2023a) and updated annually. It is used to indicate in the patient's medical record any procedures provided by the medical practice.

As with ICD-11 codes for diagnoses, a proper CPT code is required for filing claims for reimbursement of the procedures provided by the practice.

Submission and Processing of Claims to Payers

Today, virtually all claims for reimbursement are submitted electronically to payers using the billing functions of the practice management system. Smaller practices may use billing services, to which the practice submits its claims online, with the billing service then processing and submitting the claim on the practice's behalf.

Review and Management of Claim Denials

As previously noted, medical billing is complicated, and the opportunity for errors and incorrect processing is significant. Therefore, practices must review all reimbursed claims to ensure that they have been paid in accordance with the contract in place with the third-party payer. In addition, they need to review and manage any claims denied. In the digital age, most of this process can be performed electronically. Programs are available to compare the practice's fee schedule for a particular payer against the payments received and generate an exception report indicating those payments that appear to be inaccurate.

Post
To enter a business transaction into a journal, a ledger, or another financial record.

Finally, practices must reconcile accounts by **posting** payments against charges and applying applicable discounts and adjustments.

Bad Debt and Charity Care

An important aspect of revenue management is the consideration of bad debt and charity care. The practice should develop policies on how it manages bad debt and its position on providing charity care. Bad debts are uncollectible fees that the practice had expected to be paid. Charity care is care provided without the expectation of payment.

If bad debt and charity care are not managed correctly by writing those services off as uncollectible and removing them from accounts receivable, the accounts receivable balance of the practice provides an unrealistic view of its potential collectible revenue. Failure to account for bad debt and charity care also skews performance metrics by making the practice's accounts receivable appear more valuable than they are.

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Revenue Cycle Failures

Revenue cycle management is a critical aspect of physician practice management, but it is fraught with difficulties and often represents a primary failure point for practices. Each step of the revenue cycle process can be vulnerable to errors, such as the following (Trew 2010):

- Lack of proper insurance information or failure to verify the information
- Incomplete or erroneous registration data
- Failure to capture charges
- Failure to post charges correctly
- Application of improper diagnostic codes
- Significant delays in posting charges (most insurance companies have time limits on when claims can be made)
- Ineffective denial management
- Failure to manage underpayments on a timely basis

Measures of Revenue Cycle Performance

Measuring and monitoring the performance of a practice's revenue cycle is essential to ensure that the process is proceeding as anticipated and to provide benchmarks for improving performance in the future. Exhibit 6.4 illustrates some important metrics that should be

Exhibit 6.4 Revenue Cycle Performance Measures

Measure	Metric
Preregistration count	98%
Up-front collection rate	5%
Denial rate due to registration errors	2%
Coding failures	1%
Charge entry delays	48 hours
Percentage of claims filed electronically	100%
Accounts receivable greater than 90 days	Less than 5%
Unposted receipts	5 days
Payment-to-billing ratio	30%

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measured to monitor revenue cycle performance. The practice manager must focus on the metrics that do not meet the standard set by the practice and consider steps to improve performance.

The Reimbursement System for Physicians Is Continuing to Undergo Significant Changes

The reimbursement system for physicians and other professional services has a major impact on the functioning of the healthcare system. Changes in reimbursement policies can affect the financial viability of the medical practice and the ability of physicians to provide high-quality care to patients.

One of the main changes in physician reimbursement is the shift from fee-for-service to value-based reimbursement. Fee-for-service reimbursement is based on the amount of services provided to patients, while value-based reimbursement is based on the quality and outcomes of the care provided. This shift is intended to encourage physicians to provide high-quality care and to reduce the overall cost of healthcare.

Another trend in physician reimbursement is the increasing pressure to lower cost. Insurance companies, hospitals, and other healthcare employers are all seeking to decrease their costs, which can lead to lower reimbursement rates for physicians. Lower reimbursements make it difficult for physicians to maintain a viable practice and for patients to afford the care they need.

The increasing use of telemedicine and virtual care is also having an impact on physician reimbursement. As more patients turn to telemedicine and virtual care options, physicians may face lower reimbursement rates for these services. This makes it difficult for physicians to adapt to the changing healthcare landscape and provide high-quality care to patients.

Additionally, the shift to value-based reimbursement models has increased the administrative burden on physicians. With value-based reimbursement, physicians are required to report on a wide range of quality measures and outcomes, work that can be time-consuming and costly. This increased administrative burden can exacerbate burnout among physicians and decrease the time they have available to provide direct patient care.

Medicare Physician Fee Schedule

Since 1992, Medicare payments for the services of physicians and other billing professionals have been made under the Physician Fee Schedule (PFS). Services paid under the PFS are furnished in a variety of settings:

- Physician offices
- Hospitals

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- Ambulatory surgical centers
- Skilled nursing facilities
- Other post-acute care settings
- Hospices
- Outpatient dialysis facilities
- Clinical laboratories
- Beneficiaries' homes

Payment under the PFS is also made to suppliers of technical services.

For most services furnished in a physician's office, Medicare makes payments to physicians and other professionals at a single rate based on the full range of resources involved in furnishing the service. PFS rates paid to physicians and other billing practitioners reflect only the share of the resources typically incurred by the practitioner in the course of furnishing the service; facility charges are excluded. Separate payments may be made for the technical component of services. The technical component is frequently billed by suppliers, such as independent diagnostic testing facilities and radiation treatment centers, while the professional component is billed by the physician or practitioner.

Resource-Based Relative Value Scale

The **resource-based relative value scale (RBRVS)** is a fundamental aspect of healthcare funding. It was originally developed by the federal government for the Medicare and Medicaid programs, but it has been widely adopted by virtually all payers. RBRVS provides a consistent methodology for valuing medical services on a relative basis, taking into account the amount of work involved and the resources used.

Resource-based relative value scale (RBRVS)
Means by which to determine the rate at which Medicare reimburses physicians on a fee-for-service basis. Calculated using the costs of physician labor, practice overhead, materials, and liability insurance, with the resulting amounts adjusted for geographical differences.

The formula used to calculate RBRVS is shown in exhibit 6.5.

Three separate relative value units (RVUs) are used to calculate a payment under the Medicare PFS.

- The Work RVU reflects the relative time and intensity associated with providing a Medicare PFS service.
- The Practice Expense RVU reflects the costs of maintaining a practice (e.g., office space, supplies and equipment, staff).
- The Malpractice RVU reflects the costs of malpractice insurance.

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Exhibit 6.5
Resource-Based Relative Value Scale Payment Formula

Payment = CF × [(RVUw × GPCIw) + (RVUp × GPCIp) + (RVUm × GPCIm)]

CF = conversion factor

RVU = relative value unit, w = work, p = practice cost, m = malpractice

GPCI = Geographic Practice Cost Index

A Geographic Practice Cost Index (GPCI) is used for each of the three RVUs to account for geographic variations in the costs of practicing medicine. Each RVU component has a corresponding GPCI adjustment.

Finally, a conversion factor (CF) is applied to determine the payment for a service, which is then added to the GPCI-adjusted RVUs multiplied by the CF in dollars. This formula converts the work and other identified factors involved in providing medical services to monetary terms. The calculations seek to determine a fair price for each service (AMA 2023b; McCormack and Burge 1994).

Medicare Access and CHIP Reauthorization Act

The Medicare Access and CHIP Reauthorization Act (MACRA) is a significant piece of legislation for medical practices. Enacted in 2015, MACRA established a new provider incentive structure and affected other aspects of healthcare financing.

First, MACRA repealed the sustainable growth rate (SGR) formula, which had been used to update the Medicare PFS and created an unpopular process for physician payment adjustments. Many in the industry saw the SGR as a flawed approach, and political pressure had built up over the years to repeal it. The SGR adjusted payments based on the overall volume of services provided as a way to control cost. It was thought that by controlling unnecessary services in this manner (see the discussion of PID earlier in this chapter), providers would alter their behavior. Unfortunately, medical care is too complicated to be effectively managed by such mechanisms, and the SGR was repealed in 2015.

MACRA also established annual positive or flat-fee adjustments to the Medicare PFS through 2025 and instituted new fee updates beginning in 2019.

Importantly, MACRA replaced the SGR with the Quality Payment Program (QPP). Practices can choose one of two tracks under the QPP: the Merit-Based Incentive Payment System (MIPS) or Alternative Payment Models (APMs). MIPS streamlined the myriad existing Medicare quality programs into a single program that pays eligible clinicians based on their quality of care, resource use, clinical practice improvement activities, and use of certified electronic health record technology. APMs are designed to reward practitioners who outperform others in delivering high-quality, coordinated, and efficient care, whereas the MIPS process focuses more on performance reporting than on actual outcomes; however, the goals of improving quality and reducing cost are the same in the two programs.

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The Centers for Medicare & Medicaid Services (CMS) laid out an initial framework for how the QPP would operate in 2016; since its implementation, the agency has added more regulations and rules (CMS 2022a). MACRA has had a significant impact not only on physicians and other clinicians, but also on the hospitals and health systems with which they partner.

Shared Savings Programs and Accountable Care Organizations

The Medicare Shared Savings Program (MSSP) is a reimbursement model that was implemented under the ACA in 2012. The program aims to promote cost savings and improve the quality of care for Medicare beneficiaries by encouraging the formation of ACOs.

An ACO is a group of healthcare providers who come together to coordinate the care of a specific patient population. ACOs are responsible for the total cost of care for their patients, and they are incentivized to keep costs low while maintaining or improving the quality of care. If an ACO is able to lower healthcare costs while meeting certain quality standards, it can share in the savings with Medicare.

The MSSP has three tracks: Track 1, Track 2, and Track 3. Track 1 is the simplest and least risky track. ACOs in this track are eligible to receive shared savings only if they meet certain quality standards. Track 2 and Track 3 are more advanced tracks. ACOs in these tracks are eligible to receive shared savings, but they may also share losses (CMS 2023a).

One of the main goals of the MSSP is to reduce the overall cost of healthcare. By incentivizing ACOs to keep costs low, the program aims to reduce the amount of money that Medicare spends on healthcare for its beneficiaries. The program is also designed to improve the coordination of care for Medicare beneficiaries, which can help reduce the number of unnecessary hospital admissions and readmissions.

The MSSP has been successful in achieving these goals. ACOs in the program have been able to reduce the growth of healthcare costs for their patients. Additionally, the program has been successful in improving the quality of care for Medicare beneficiaries (Chernew and McWilliams 2022; McWilliams et al. 2018; McWilliams et al. 2019; Modi and Moloci 2020).

However, there have been some criticisms of the MSSP (Shakir, Armstrong, and Wasfy 2018). According to Matthew Fiedler (2022) of the Brookings Institution, CMS should make the following adjustments to the MSSP program:

- CMS should proceed with proposals to limit negative regional adjustments and adjust ACO benchmarks for prior savings.
- CMS should abandon its proposal to use projected spending growth, rather than realized spending growth, to update ACO benchmarks within an agreement period.
- CMS should proceed with its proposal to relax the 3 percent limit on increases in ACO risk scores during an agreement period.

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One of the main criticisms of the MSSP is that the program has not been able to achieve significant cost savings. Another criticism is that the program does not do enough to improve the coordination of care. Some have also criticized the program for not doing enough to address health disparities among patient populations (Chernew and McWilliams 2022; Douven, McGuire, and McWilliams 2015; Song et al. 2017; Yasaitis et al. 2016).

MIPS Timeline

The MIPS performance year begins on January 1 and ends on December 31 each year. An organization that is eligible for MIPS must report data collected during the calendar year by March 31 of the following calendar year. Payment adjustments, based on the data submitted for services provided, are applied to Medicare Part B claims for January 1 to December 31 of the year following data submission. To illustrate, if the practice collects data between January 1 and December 31, 2023 (the performance year), the data must be reported by March 31, 2024, and the practice will receive a MIPS payment adjustment between January 1 and December 31, 2025 (CMS 2023b).

MIPS payments for practices and physicians participating in MACRA are based on a composite score created from three quality-based programs: Physician Quality Reporting System, Value-Based Payment Modifier, and Meaningful Use (AAFP 2023).

One of the big differences between MIPS and APM is that APM requires practices to take on more financial and technological risk than MIPS, and it goes further toward the goals of high quailty and efficient care by examining actual outcomes.

Practitioners must be one of the following to participate in MIPS:

- Physician
- Physician assistant
- Nurse practitioner
- Clinical nurse specialist
- Certified registered nurse anesthetist

The final rule for MACRA exempts practices that report $30,000 or less in Medicare Part B charges or have 100 or fewer Medicare patients from reporting requirements in 2017. In addition, it exempts practitioners in their first year of Medicare participation.

Although MACRA applies only to Medicare, many commercial payers follow Medicare's lead in terms of reimbursement, so understanding how MACRA affects a practice or group is important. As demonstrated by the following discussion, the law is complicated.

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MACRA Requirements

MACRA is complex and includes many requirements. The five criteria for participation starting in calendar year 2018 are the following:

- Protection of patient health information and documentation that a security risk analysis has been performed.
- Electronic prescribing.
- Coordination of care through patient engagement. Patients should be able to view, download, transmit, correspond via secure messaging, and have access to patient-generated health data and communicate with their physician electronically through a secure messaging application.
- Health information exchange and patient care record exchange, with the ability to request and accept patient care records and to perform clinical information reconciliation.
- Public health and clinical data registry reporting, including to immunization registries.

These criteria essentially focus on four areas:

- Quality
- Resource use
- Technology, specifically electronic health records (EHRs)
- Clinical practice improvement activities

Consider this example of a measure of patient engagement: In the case of secure messaging, at least one unique patient seen by the MIPS-eligible practitioner during the performance period receives a secure message using the electronic messaging function of a certified EHR. This message could also be sent to the patient-authorized representative, or it could be sent in response to a secure message sent by the patient or representative.

The practice (the physicians or other MIPS-eligible practitioners) must perform the following while continuing to practice medicine:

1. For the period January 1, 2017, to December 31, 2017, use a 2014 or 2015 edition certified EHR
2. Report on either eight stage 2 or six stage 3 advancing care information objectives and measures

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a. Attest to their cooperation in good faith with the surveillance of the Office of the National Coordinator for Health Information Technology (ONC)

b. Undergo ONC direct review of the EHR, including the attestation to their support for health information exchange and the prevention of information blocking

APMs require participants to bear a certain amount of financial risk in the form of reduced rates, withheld payments, or penalties assessed by CMS when actual expenditures exceed expected expenditures. Payments are based on evidence-based, reliable, and valid quality measures rather than MIPS quality performance categories.

In addition, participants are required to use certified EHR technology. As proposed, 50 percent of practitioners must use certified EHR technology to document and communicate patient care information.

Medical practices must make a number of decisions about MACRA, especially as the rules are continuing to evolve. Avoiding penalties will be increasingly difficult, but practices must consider the direction they will take for future years. Whether to choose MIPS or APMs is an important question that must be considered on a practice-by-practice basis. Each practice needs to weigh its options and consider the potential risks and rewards, its technological sophistication, and its level of commitment to further technological development. Practices should be certified PCMHs, as these entities will "automatically" receive full credit for improvement activities, which accounts for 15 percent of the score (CMS 2022b).

Other practices may band together to achieve economies of scale in administration, contracting, billing, reporting, and technology. The trend toward consolidation will certainly be supported by MACRA. For example, they may join an ACO or a clinically integrated network (CIN). A CIN is a group of physicians, hospitals, and other providers coming together with the goal of improving patient care and reducing overall cost of care.

The rules in the healthcare arena are rarely static. Practice managers and leaders need to follow the developments related to MACRA carefully so that the best decision for the individual practice can be made. Monitoring the CMS website (www.cms.gov) is one important activity, and checking for updates from organizations such as the Medical Group Management Association and the American College of Healthcare Executives can be helpful as well.

Changes are being implemented on a regular basis, usually yearly, so practices need to stay up-to-date on all the rules and regulations at the various CMS websites (CMS 2022b).

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Discussion Questions

1. Illustrate and discuss the steps in the revenue cycle.
2. What impact have high-deductible health plans had on the revenue of medical practices?
3. What are the four parts of Medicare? Discuss the functions of each part.
4. What are ICD codes?
5. What choices do practice managers have in selecting performance metrics for the revenue cycle?
6. Define the term *relative value unit* and describe the components of the resource-based relative value scale.
7. Discuss some of the complexities of the Medicare Sharing Savings Program. Why have some people suggested that the program be changed?
8. Why do you think some states resisted the expansion of Medicaid under the ACA?
9. Discuss the purpose of MACRA and summarize its elements.

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CHAPTER 7

FINANCIAL MANAGEMENT AND MANAGERIAL ACCOUNTING IN THE PHYSICIAN PRACTICE

It's not only how much money you make. It's what you do with it that determines your financial condition.

—Sandra S. Simmons

Learning Objectives

- Appreciate the nature of cost behavior in the medical practice and why understanding it is important.
- Understand the importance of financial management in the medical practice.
- Describe the nature and purpose of budgeting.
- Articulate the use of variance analysis and metrics in the review of financial statements.
- Understand the complexities of physician compensation.

Introduction

Financial management and accounting involve financial planning, collection of financial data, and reporting of financial information about the practice for internal and external

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stakeholders. This process allows the practice to determine its financial position and make decisions accordingly.

Financial and management accounting are important disciplines unto themselves; however, the modern practice manager needs a basic knowledge of the financial aspects of the practice to become a good consumer of financial information. Today, the collection of financial data and the production of financial documents are accomplished using accounting packages that are commonly available in practice management systems or other accounting software. Depending on the practice size, accounting functions may be handled by contracting with outside accounting firms or financial management organizations to assist in the preparation of the documents described in this chapter. In addition to saving the medical practice from the labor-intensive task of completing financial management functions, this approach provides a degree of oversight and guidance that can be reassuring. Regardless of the exact approach the practice takes in managing its financial activities, they must be carried out on a consistent and disciplined basis to prevent erroneous overstatements or understatements of the fiscal well-being of the practice, which can lead to significant regulatory and fiscal issues.

Cost Behavior

A fundamental aspect of managing a medical practice's finances is understanding cost behavior. As shown in exhibit 7.1, different costs behave differently over time. Understanding cost behavior is essential to properly manage and predict costs in relation to practice operations. Without this understanding, errors in planning will occur and cost projections will be flawed; this could mean the difference between a successful project or service and a failed one. Careful understanding of cost behavior is also important to assist others in the practice who may be less familiar with financial concepts and therefore may make incorrect assumptions about what supplies, services, and other outlays cost.

Three general terms are used to describe how costs behave:

- *Variable costs* fluctuate on the basis of the volume of services and include items such as medical supplies (e.g., examination table paper, tongue depressors).
- *Fixed costs* vary only within a given range on the basis of volume of services (e.g., the cost for building rent or the mortgage payment would not change just because the practice saw a few additional patients, but it would change if the practice needed to acquire new space).
- *Step-variable costs* are fixed over a specific range of services, but increase when the variable cost range for a service exceeds its limit (e.g., a receptionist who effectively manages 30 patient check-ins per hour cannot keep pace when the

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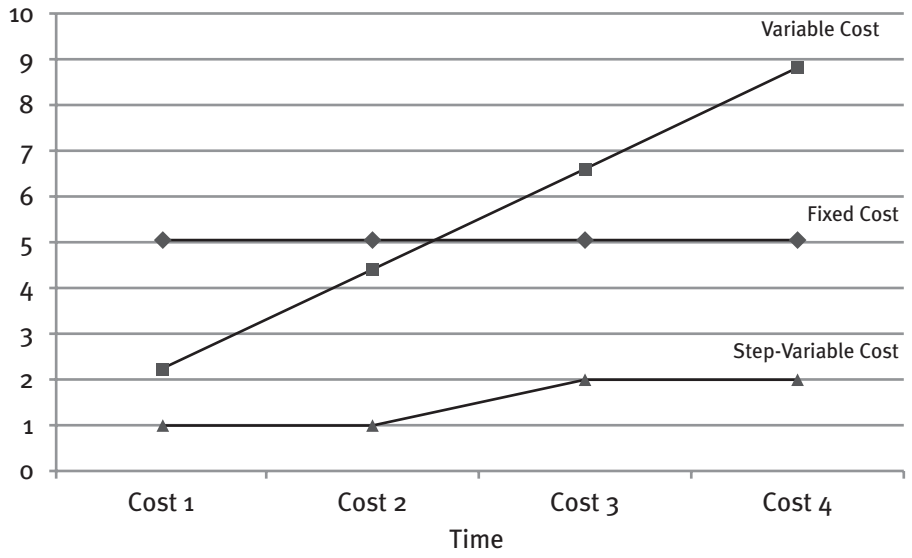


Exhibit 7.1
Cost Behavior

practice begins seeing 45 patients per hour, so an additional receptionist is needed).

Types of Costs

Costs can also be described by two types:

- *Direct costs* are directly related to the production of services (e.g., supplies, direct labor, medications).
- *Indirect costs* are not specifically attributed to a service but are necessary for the operation of the practice in the production of services (e.g., practice manager's salary).

Costs such as rent and utilities can be accounted for in a variety of ways, such as allocating them to a service area by square footage and thereby treating them as a direct cost or simply attributing them as an indirect cost of the practice. The way these costs are handled often depends on the level of allocation the practice wishes to employ: the more specific the level of allocation, the more time and effort the practice must invest to provide an accurate accounting. Many practices find that allocating costs to a portion of the practice as direct costs is not worth the expense and effort to do so.

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Chart of Accounts

Chart of accounts
A listing of all the accounts or categories into which business transactions are classified and recorded. Each account is assigned a number, and transactions are coded by this number for computer analysis and manipulation.

A **chart of accounts** is an accounting tool used to list all the categories of expenses and revenue sources used by the practice. Accounts are categories of expenses and revenue that help the accountant determine how transactions should be recorded.

The chart of accounts includes the account title and details of that account. The accounts are customarily assigned by a systematic coding process with number sequences, as follows:

Numbers 001–199 are asset accounts.

Numbers 200–299 are liability accounts.

Numbers 300–399 are capital accounts.

Numbers 400–499 are revenue accounts.

Numbers 500–599 are expense accounts.

The Medical Group Management Association (MGMA) has developed a standard chart of accounts that is used by some medical practices that have not established their own. It provides a specific set of accounts for the practice and is available for a nominal cost from MGMA (Gans, Andes, and Gold 2014). Using a standard chart of accounts helps the practice manager make meaningful comparisons against operating benchmarks without the need for significant adjustments to make the data comparable.

Charge Description Master or Chargemaster

The charge description master, also called the chargemaster, is a comprehensive database of all billable items that could appear on a patient's account. It contains descriptions, revenue codes, department associations, and services codes for each payer.

Accounting Methods

Cash accounting system
Method of accounting by which income is recognized as it is received and expenses are recognized when they are paid.

One decision a medical practice needs to make is which accounting method to use for reporting income, reporting expenses, and tax filing. Two commonly used methods of accounting that are recognized under generally accepted accounting principles are the cash-basis accounting system and the accrual accounting system.

Cash-Basis Accounting

Many small medical practices use the **cash accounting system**, which resembles the accounting process that most of us use in our personal lives.

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Cash-basis accounting recognizes income when it is received and expenses when they are paid. So, as the term *cash basis* implies, a recordable transaction occurs when cash is received or spent. Under this system, accounts receivable are not recorded as income.

Accrual Accounting

The **accrual accounting system** recognizes income when it is earned (but not necessarily received) and expenses when they are incurred (but not necessarily paid). Under this system, accounts receivable are recorded as income, with an offsetting adjustment that recognizes the probability that all receivables will not be collected.

Accrual accounting system
An accounting system that records revenues and expenses at the time the transaction occurs, not at the time cash changes hands.

Comparing the Accounting Methods

Each accounting method has its advantages and disadvantages. In some respects, the cash-basis system is simpler and more easily understood, whereas the accrual system may recognize the reality of practice operations more accurately. For example, in a cash-basis system, receiving a large check at the end of the month for services rendered in the past inflates the income for that **accounting period**, providing an inaccurate picture of the activity that occurred in the operations. Similarly, paying a large expense during any given period may overinflate expenses. Another concern with the cash-basis system is that it can be manipulated by moving expenses and income from one period to another, especially near the end of accounting periods, again resulting in an unrealistic or inaccurate financial picture.

Accounting period
The period of time over which profits are calculated. Normal accounting periods are months, quarters, and years (fiscal or calendar).

The accrual system may provide less variation from month to month but requires additional bookkeeping activities to record financial scenarios such as estimating bad debt. Matching expenses and income realistically may provide a better understanding of practice operations.

Regardless of the accounting system chosen by the practice, the practice manager is expected to help all stakeholders (including providers and other staff) understand how the system used by the practice works and provide the most realistic view into practice operations possible.

Budgeting

One of the most important aspects of managing the medical practice is having an effective budgeting process in place. The budget is a financial blueprint for the practice, and it is set by the strategic plan for the organization. The strategic plan elements needed for the budget include the goals for the year, the metrics that will be used to evaluate progress, the formulation of the budget itself, the means by which to implement the plan, and the process for measuring and monitoring the budget.

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The budget is an operational as well as a governing document, and it serves many purposes, including the following:

- It is a way to quantify the goals of the organization in dollars.
- It is a communication document that allows all members of the practice to understand the financial objectives of the organization.
- It is a way for the practice to express its mission in terms of dollars and units of service.
- It is a way to monitor and report results so that corrections may be made throughout the budget cycle. The budget period is typically one year; in the case of medical practices that are privately owned, by law, the practice year is the calendar year.

In cases in which the practice has not developed a strategic plan, the budget is based on events and activities the practice expects to occur during the next budget period. Examples include adding a service, bringing a new provider on board, or anticipating an increase in patients as a result of a change in insurance plans accepted by the practice.

The Budget Cycle

Exhibit 7.2 illustrates the budget cycle for the typical medical practice. All key stakeholders must participate in budgeting to help ensure that the budget is accurate, accepted, and seen as credible. Budgeting revenue-to-income ratios is among the most difficult aspects of medical practice budgeting. Although the topic is beyond the scope of this text, special attention should be paid to estimating this part of the budget.

Methods of Budgeting

Three methods of budgeting are commonly used:

- *Zero-based budgeting* starts each new budget cycle by examining each expense and requiring justification for the expense in the coming year. The advantage of the zero-based budget is that it allows scrutiny on all aspects of the budgeting process, some of which may be overlooked in other circumstances. A major disadvantage is that it is time-consuming, and the level of detail may not always be warranted.
- *Incremental budgeting* begins with the previous budget from which to make adjustments on the basis of anticipated changes to expenses and income. One

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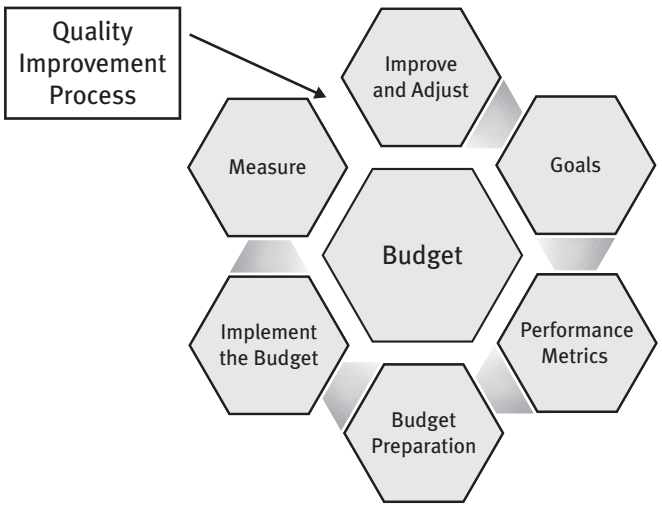


EXHIBIT 7.2
The Budget Cycle

major advantage of the incremental budgeting process is that it takes less time to complete than zero-based budgeting. When major changes in the practice are not anticipated, incremental budgeting may be the more reasonable approach. The incremental budget is static and does not adjust to changes that occur during the budget period.

- *Flexible budgeting* is a sophisticated form of budget that adjusts as the volume of services varies. One key advantage of this budgeting form is that, as the term *flexible* implies, it is adaptable to changes in the circumstances of the practice, such as adding a provider. Flexible budgeting requires disciplined monitoring so that adjustments are not made simply to correct for inaccurate budget preparation.

As suggested by the last point, precision is an important consideration in budgeting. The practice must decide the level of detail to apply in preparing its budget. Accuracy and detail are always a trade-off in determining the exactness of the final budget. Carefully prepared budgets can take a good deal of time and effort to complete. Some small practices do not make a budget at all. Instead, they use the "sum sufficient" approach: simply making purchasing decisions as necessary and maintaining the practice operations at the optimum level of productivity, given factors such as vacations and other scheduling restrictions. This method may be desirable because it does not produce pressure to spend a set budgeted amount and it is a common, sensible, and understandable way to think about spending. However, it may not anticipate the practice's needs as well as a budget can.

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Components of the Budgeting Process

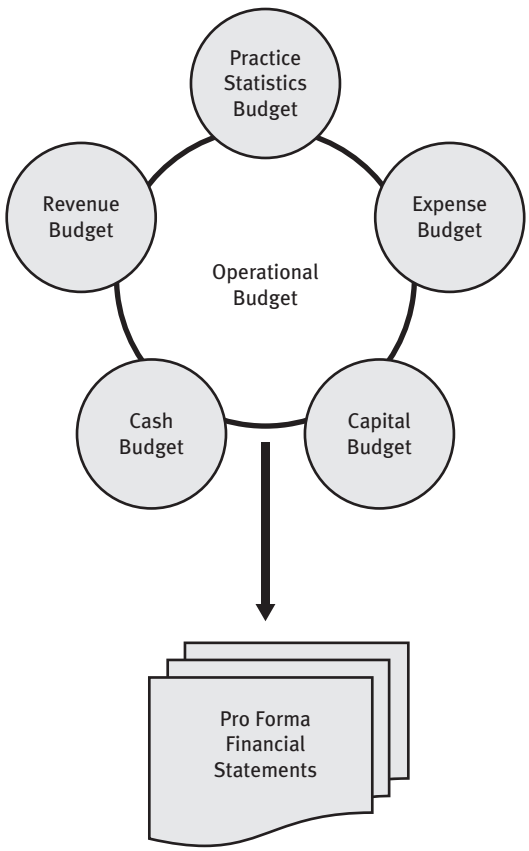
Exhibit 7.3 shows the multiple components involved in creating an effective operating budget.

The overall budgeting process requires the creation of several individual budgeting categories, or separate "budgets," which include the following:

Expenditure
Occurs when an item is acquired for a business, an asset is purchased, salaries are paid, and so on.

- *Statistical budget*—Sometimes located in a data warehouse (Inmon 2005), the statistical budget contains all the relevant data needed to complete the budget process. These data include the estimated number of procedures, resource-based relative value units, number of employees, salary information, benefit information, expected capital **expenditures**, supply costs, plant and equipment costs, and other expenses and sources of revenue.

Exhibit 7.3
Budget Components



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- *Revenue budget*—The revenue budget contains an estimate of the services the practice will provide and the expected revenue from those services. In many ways, developing a revenue budget may be the most difficult aspect of budgeting because so many variables must be taken into consideration. For example, estimating the number of services to be provided is challenging because it can vary greatly from year to year depending on several factors, such as the number of provider days worked, fluctuations in demand for services as changes in the community occur, severity of illnesses that are presented, shifts in competitive position, and changes resulting from new or declining services.

  In addition, revenue projection is difficult for professional services such as medical care because appointment slots are ephemeral and gone forever if not used when available—appointments cannot be stored for future use. Thus, demand for services can be highly variable. Historical records of high-volume and low-volume periods may be useful in this part of the budgeting process. One example of an extreme-volume period is flu season, when primary care practices see an unusually high number of patients and may need to accommodate additional patients. When possible, these types of trends should be recognized in the budget for both expenses and income.
- *Expense budget*—The expense budget is straightforward in that it can be predictable because it is based on the number of employees and other expenses of the practice. If the medical practice has a good understanding of its expenses and the relationship between its expenses and the volume of services provided, this aspect of budgeting may be the most accurate and easiest to perform.
- *Cash budget*—The cash budget is a prediction of the cash flow that will be received by the practice and is an analysis of services provided and the expected income from those services. Some of the variables that go into considering cash budgets are as follows:

  — The payers, which are major revenue sources for the practice, and the history of their payment practices

  — Expected payment for each service from the payers

  — The relative volume of services to be billed to each payer

  The practice may develop an average reimbursement per service on the basis of historical payment patterns. This average is determined by dividing the total revenue from a service by the total number of individual units of that service provided:

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Total revenue by service ÷ Total number of services =
Average revenue per service

This calculation can be performed by modern practice management systems. The amount may need to be adjusted in consideration of volume and payment changes from payers during the budget process.

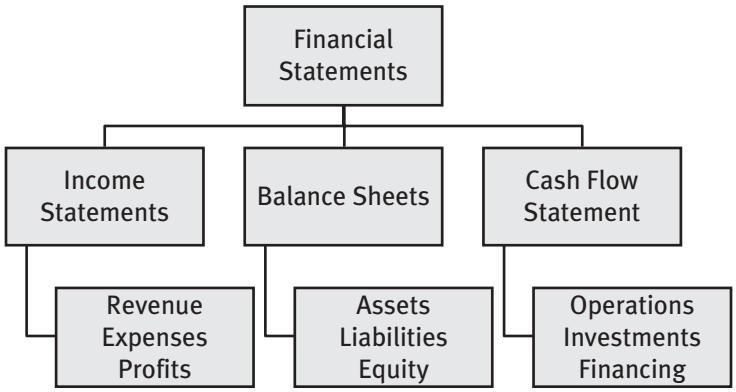
Depreciation
An expense that is intended to reflect the loss in value of a fixed asset.

- *Capital budget*—The capital budget reflects the **depreciation** costs from existing equipment as well as the expected purchase and depreciation of new equipment. These costs are based on the depreciation methods adopted.
- *Operating budget*—The operating budget is the combination of the previously described budgets. It provides the financial operating plan for the practice and can be used to predict the practice's financial performance in the form of the pro forma financial statements. A pro forma is the predicted result from the elements considered in the budgeting process.

Financial Statements

Effective financial management of the practice requires the production of a number of important financial documents used to determine the financial position of the practice and to manage the practice in accordance with its mission, vision, values, and goals. Exhibit 7.4 shows some of the principal financial statements needed by the practice and major components that comprise each statement. Note that all financial documents are created for a given time frame, such as monthly, quarterly, or annually. Except for pro forma statements, which are forward looking, all represent financial transactions and events that occurred in the past.

Exhibit 7.4
Financial Statements



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Profit-and-Loss Statement

The profit-and-loss (P&L) statement, also called the income statement, provides an accounting of the revenue, expenses, and resulting **profits** or losses from the activities of the practice.

Profit
The amount left over when expenses are subtracted from revenues. Also referred to as *income, net income*, or *earnings*.

Exhibit 7.5 illustrates a simple income statement for Happy Practice XYZ for the period ending March 31, 2023. Notice the important components:

- Patient revenue
- Major categories of expenses
- Total operating expenses
- Income

Physician or provider compensation is often considered separately as a line item on the income statement, as are physician or provider expenses. The practice often serves as an income vehicle for the practice owners, and that function should be captured in a

Exhibit 7.5
Happy Practice XYZ Income Statement

March 31, 2016			
Revenues			
Patient Revenue			$165,000
Operating Expenses			
Advertising	$5,310		
Wages	$ 30,500		
Utilities	$ 1,080		
Depreciation	$ 800		
Repairs	$ 4,260		
Insurance	$ 600		
Interest	$ 100		
Supplies	$ 3,900		
Total Operating Expenses		$46,500	
Physician Compensation			$118,450
Physician Expenses	$115,000		
Net Practice Income			$ 3,450

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way that separates actual operating cost for the practice from those expenses that represent owner income.

In addition, note the net income line, which is the profit or loss that the practice produced after all expenses and compensation have been paid. Practice income can be used for bonus distribution or for reinvestment in the practice. It can also be retained by the practice, creating additional equity in the practice for the owners.

Exhibit 7.6 illustrates a simple month-by-month practice financial report in the form of a spreadsheet, which shows the elements of the income statement. Tracking income monthly allows the practice manager to monitor the practice's financial performance over time.

Statement of Cash Flows

The statement of cash flows provides useful documentation and a process for analyzing the sources and outlays of the cash coming into the practice. Exhibit 7.7 illustrates a simple cash flow statement for Happy Practice XYZ. The following are some important features to note:

- The amount of cash brought into the practice through operations, often known as cash flow, can be positive or negative depending on how much is spent in relationship to cash received.
- Other sources of cash can be proceeds from a bank loan or the sale of stock investments.
- A major use of cash is for the purchase of equipment.
- Payments on loans represent a reduction in cash.

Balance sheet
A statement of the financial position of a practice at a specific time, often at the close of business on the last day of the month, quarter, or year.

Cash flow results in an increase or decrease in the practice's cash. An important practice management function is ensuring that cash flow is reflected accurately on the statement of cash flows. In addition, practice leaders should help the practice evaluate its use and sources of cash for future operational considerations to avoid being unprepared for cash needs.

Balance Sheet

Liability
An amount owed by a practice to an individual or entity.

The **balance sheet** is a statement of assets, **liabilities**, and capital at a point in time and reflects all the financial transactions that have occurred in that time frame. Exhibit 7.8 illustrates a simple balance sheet for Happy Practice XYZ. Note the following in particular:

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- Happy Practice XYZ uses an accrual method of accounting; this is evident because accounts receivable are reflected as a current asset. On a cash-basis system, this item would not appear in the balance sheet.
- Long-term assets, including the building minus its accumulated depreciation and the value of the land, are reflected.
- Total assets equal current assets plus long-term assets.
- Claims against assets are the liabilities of the practice.
- Current liabilities include **accounts payable**, which typically include items that have been purchased on **credit** liabilities for which payment is due upon receipt of the invoice or in a short time hence.
- Long-term liabilities are reflected as long-term notes, which are obligations to pay (in this case $300,000) at some future date; these are not considered current obligations.
- Total liabilities are calculated, and the difference between total assets and total liabilities is the equity in the practice. Equity can be reflected by a simple formula:

  Equity = Total assets – Total liabilities.

- **Current assets** are cash and items that can quickly be turned into cash, such as marketable securities and **inventory**.

Accounts payable
Amounts owed by the practice for the goods or services it has purchased from outside suppliers.

Credit
An accounting entry on the right or bottom of a balance sheet usually reflecting an increase in liabilities or capital or a reduction in assets.

Current asset
An asset that is expected to be turned into cash within a year, including cash, marketable securities, accounts receivable, and inventory.

Inventory
The supply or stock of goods and products that a practice has for sale.

The balance sheet can be important for establishing the net value of the practice and may be used by financial institutions in determining creditworthiness. In for-profit practices, income retained in the practice is taxed as business income and again as personal income when it is distributed to the owners. This process is known as double taxation. To avoid double taxation, practice owners often elect to distribute all income as bonuses, which leads to little, if any, retained earnings.

Monitoring Financial Performance

All the financial statements, and the effort expended to prepare them, are of little value unless they are monitored carefully. Monitoring involves careful variance analysis and review of metrics and ratios that reflect the goals of the practice. These measures vary from practice to practice and may be based on the specific concerns of the practice, such as poor cash flow or high expenses.

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EXHIBIT 7.6

Practice Financial Report

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr to Date
1 Total Charges	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	**$12,000**
Avg Daily Charges	$ 32	$ 36	$ 32	$ 33	$ 32	$ 33	$ 32	$ 32	$ 33	$ 32	$ 33	$ 32	**$ 33**
Total Charges Physician #1	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	**$ 5,500**
Total Charges Physician #2	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	**$ 2,400**
Total Charges Physician #3	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	**$ 2,160**
Total Charges Other	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	$ 20	**$ 240**
2 Total Payments (or Receipts)	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	**$12,000**
3 Total Refunds	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	**$ 120**
4 % Copayments Collected	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	**600.00%**
5 Total Accounts Receivable (A/R)	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	$ 900	**$10,800**
Total over 90 days	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	$ 10	**$ 120**
% over 90	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%	**1.11%**
6 Gross collection ratio	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	**100.00%**
7 Net Receipts—Budget	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	$1,100	**$13,200**
Net Receipts—Actual	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	**$12,000**
8 Operating Expenses—Budget	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	**$ 6,000**
Operating Expenses—Actual	$ 490	490	490	490	490	490	490	490	490	490	490	490	**$ 5,880**
9 Net Income	$ 610	610	610	610	610	610	610	610	610	610	610	610	**$ 7,320**
10 Total encounters	600	600	600	600	600	600	600	600	600	600	600	600	**7,200**
11 Total new patient visits	30	30	30	30	30	30	30	30	30	30	30	30	**360**
% new patient visits	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	**5.00%**
Full-time equivalent staff	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.00	6.00	**4.25**

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Exhibit 7.7
Practice Cash Flow Statement

Cash Flow Statement for Happy Practice XYZ
For the period ending May 31, 2023

Cash from Operations	
+ Cash from collections	$5,000
– Cash to suppliers and employees	(4,000)
Net cash from operations	$ 1,000
Cash from Investments	
– Equipment purchase	(1,000)
Net cash from investment	–1,000
Cash from Financing	
+ Loan from bank	+2,000
– Payment on loan	–500
Net cash from financing	+1,500
Net Increase or Decrease in Cash for the Period	**$ 1,500**

Exhibit 7.8
Balance Sheet, Happy Practice XYZ, PC, December 31, 2022

Assets			**Claims on Assets**		
Current Assets			Current Liabilities		
Cash	$123,000		Accounts Payable	$100,000	
Marketable Securities	$200,000		Notes Payable	$150,000	
Accounts Receivable	$345,000		Total Current Liabilities	$250,000	
Inventories	$100,000		Long-Term Note	$300,000	
Total Current Assets		$ 768,000	Total Liabilities		$ 550,000
Long-Term Assets			Owners' Equity		$ 843,000
Building (Gross)	$350,000		Total Claims		**$1,393,000**
– Accumulated Depreciation	$–50,000				
Net Building	$300,000				
Land	$325,000				
Total Long-Term Assets		$ 625,000			
Total Assets		**$1,393,000**			

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Variance Analysis

The financial statements must be accompanied by a variance analysis to effectively monitor the financial progress of the practice. This process allows the practice manager to determine why a variation has occurred between the budgeted amount and the actual results. Variances may be reviewed in terms of metrics and ratios or in absolute terms, and the practice may wish to establish a performance band, or range, of acceptable performance. For example, if the practice budgeted to collect $1,000 per month and the actual performance was $999, because the variance is so small, no analysis is likely necessary. Now let's say that utility expenses were budgeted to be $500 per month and the actual cost was $1,000. This variance—100 percent of the expected result—warrants investigation. There are several possible reasons for this outcome:

- The variance may have occurred in a summer month when the weather was particularly hot, requiring additional utility services.
- The budget may contain an average utility cost per month that varies dramatically from month to month; therefore, the practice might see much lower bills at other times of the year. In this case, the practice manager should note the variance and document the likely reasonable explanation.
- If no reasonable explanation can be found, a budgeting error may be the cause, meaning the expenses were not estimated correctly. This finding should be noted so that special attention can be paid to this item when preparing the following year's budget to improve its accuracy.
- Further investigation may indicate errors of meter readings on the part of the utility company or changes in the practice's operation, such as extended hours causing an increase in volume and therefore utility cost.

Establishing criteria for the review of variances and quickly investigating those variances are critical steps so that corrective action can be taken if warranted. The number of financial items related to a typical practice is significant, and every item cannot be continuously investigated. Practices might consider variances greater than 10 percent from budget as being significant enough to warrant further examination. A large dollar variance may also require further investigation.

One caution in performing variance analysis is to not rely solely on profit and loss as the most important metrics. The profit from the practice is a result of revenue minus expenses. Optimizing revenue and the utilization of costs optimizes the outcome in the form of increased profitability. Unless a careful examination of revenue and expense variances is undertaken, the opportunity for such optimization may be lost.

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Metrics and Ratios

An endless number of metrics can be applied in medical practices. Regular maintenance of databases and the consistent measurement of the metrics deemed most important by the practice are important functions of practice managers and leaders. Certain metrics may require more focus from time to time, including those based on quality improvement activities or the identification of issues that need to be addressed. Appropriate metrics must be selected to achieve the desired managerial result.

Metrics fall into many categories. The most common include the following:

- Financial
- Operational
- Clinical

In this section, we focus on some key financial and operational areas.

Financial Metrics

A number of financial metrics should be monitored by the practice manager related to revenue, expenses, and productivity. Revenue is often expressed as a percentage of the billed charges that are collected, particularly in terms of the following time periods after billing:

- 0 to 30 days
- 31 to 60 days
- 61 to 90 days
- 91 to 120 days
- Greater than 120 days
- Percentage of total collections to charges

This division is important because the older an accounts receivable, the less likely it will be collected. Often receivables are uncollectible because the insurance information that was provided is inaccurate or the patient—whether insured but with a high deductible and coinsurance, self-pay, or uninsured—does not have the economic means to satisfy the bill.

Another important metric in the financial arena is the number of claims filed accurately with the payer the first time. This measure is usually expressed as a percentage of claims rejected because of inaccurate information. Careful management and quick

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review of denied claims is imperative to resubmit them as soon as possible. Modern practice management systems contain "scrubbers" to help ensure claims are properly prepared for filing.

At some point, outstanding accounts receivable need to be written off as bad debts or as uncollectible. This step helps the practice avoid having an unrealistic view of the number of collectible receivables. The practice should have a carefully crafted policy on how to manage older accounts receivable; some options are as follows:

- Write off as charity care
- Send to a collections firm or continue internal collection activity
- Write off as bad debt

Bad debt is distinguished from charity care in that bad debt represents receivables that are collectible but the debtor is unwilling to pay, whereas in the case of charity care, the debtor is unable to pay or the practice had no expectation of payment at the outset of the encounter.

When the likelihood of collecting a debt is very small, the account should be written off to a special account so that a record is kept of the action but the account is no longer considered an active receivable. This way, the practice avoids creating a falsely inflated balance of viable receivables.

Operational Metrics

Dashboards can be very effective ways to express the operational health of the practice in a precise and timely way. Most practice stakeholders are busy and not well versed in financial matters; therefore, the use of dashboards, such as a heat map, may be an ideal way to keep everyone informed. Exhibit 7.9 shows an example of a practice heat map with four key metrics. Two of the indicators are in darker shades, indicating they are operating below expectation. The lighter-shaded indicator reflects higher-than-expected performance, and shades in between indicate performance as expected. Indicators with darker shading require investigation to improve. Notice that the positive indicator is productivity, which may indicate that the practice is producing well but lagging in other operational areas.

Exhibit 7.9
Heat Map of Key Metrics

Productivity 2000 wRVUs/provider	Adjusted Collection Percentage 60%
Expense Ratio 50%	Net Income

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Adjusted collection percentage is performing below expectations, which may be the primary source of concern and require additional attention from the practice manager. Colors may be substituted for shading, with green denoting positive, red negative, and yellow neutral; this is also referred to as a stoplight dashboard.

Performance Benchmarks and Important Financial Metrics

Performance benchmarks are numerous and varied. Some examples are shown in exhibit 7.10. Because so many potential metrics are available, the practice manager must carefully target those measures that are most meaningful to the practice's concerns.

Organizations such as the MGMA provide benchmarks that are useful in determining the ideal performance level of a practice. Without some understanding of what poor, average, or superior performance data are, the practice manager may have difficulty determining the areas that require more focus for improvement.

The financial systems maintained by medical groups are as follows:

- Payroll
- Billing systems
  - Government third-party
- Employee benefits
- Financial reporting
  - Profit/loss statements (income statements)
  - Variance analysis
  - Financial control and audit functions
  - External
- Maintenance of fee schedules and chargemasters
- Accounts receivable
  - Insurance
  - Self-pay
- Accounts payable
  - Balance sheet
  - Budgets
  - Service and receipt (and its various forms)
  - Internal
- Compliance
- Chart of accounts

Physician and Other Provider Compensation

Physician compensation is an important area of practice management that requires special attention and can be one of the most challenging aspects of the practice administration's compensation and benefits program. It is such an integral part of the financial management of the practice that it is discussed here rather than as part of the human resources chapter (chapter 8).

Physicians are compensated in a number of ways, ranging from a simple salary to a complex formula involving several components. How providers are compensated in the medical practice may depend on the ownership of the practice. In small, privately owned practices, the physician owners typically decide how they are paid.

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Exhibit 7.10
Formulas and Ratios for Benchmarking

Formulas for Benchmark Equations and Metrics	
	$\frac{\text{Bad debt}}{\text{Net collections}}$
	$\frac{\text{Operating expenses}}{\text{Total revenue}}$
	$\frac{\text{Staff FTEs}}{\text{Total revenue}}$
	$\frac{\text{Current assets}}{\text{Current liabilities}}$
	$\frac{\text{Cash, marketable securities, A/R (if on accrual system)}}{\text{Current liabilities}}$
	$\frac{\text{Long-term debt}}{\text{Long-term debt and shareholder}}$
	$\frac{\text{Total liabilities}}{\text{Total liabilities and shareholder}}$
	$\frac{\text{Appointment no-shows}}{\text{Total schedule appointments}}$
Gross Collection Rate	$\frac{\text{Net collections}}{\text{Gross charges}}$
	$\frac{\text{New-patient appointments}}{\text{Total scheduled appointments}}$
	$\frac{\text{Floor space, expenses, bad debt, income}}{\text{FTEs}}$
Average Daily Receivables	$\frac{\text{Total receivables recorded in 60 days}}{\text{60 days}}$
Days of Receivables Outstanding	$\frac{\text{Total receivables}}{\text{Average daily receivables}}$

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In large, affiliated practices or practices owned by healthcare systems, compensation may be driven by market forces and by the human resource policies of the organization.

Because of the private inurement rules discussed in chapter 4, compensation may be subject to certain limitations so that total provider income does not exceed the current market value for the services provided by the physician to the organization. The Office of Inspector General of the US Department of Health and Human Services recognizes certain standards for determining market-based compensation for providers and has devoted significant effort to informing the practice community of the rules and regulations regarding just compensation (OIG 2015, 2016). The practice must remain vigilant regarding compliance with all the rules and regulations pertaining to physician compensation. This requirement is especially relevant for not-for-profit organizations because of the potential to attribute compensation for referrals and other non-practice-related activities not provided at fair market value for the work performed by the practitioner.

Determining Physician Compensation: One Example

Here we examine one approach taken by a for-profit practice that is distributing the net proceeds of practice operations as income to the physicians (Darves 2011).

Establishing the compensation formula used by the practice requires significant input, analysis, and consideration by the stakeholders.

1. *Determine and clarify philosophy and objectives*. The philosophy and objectives of the practice help frame the mission, vision, values, and goals, which in turn inform the compensation. Examples of philosophy are the prevailing attitudes of practice staff toward productivity (often expressed as relative value units or RVUs), the egalitarian nature of the practice, and the practice style differences among the physicians in the practice. For example, in a multispecialty practice, a pediatrician and a neurosurgeon would not be paid the same salary; however, the criteria for determining salary might be the same, such as productivity, patient satisfaction, physician citizenship, community benefit, credit for nonmedical care duties, research, quality indicators, longevity with the practice, and consideration for outreach activities.
2. *Determine what databases are needed as input for the compensation formula, and assess the quality of the information*. Practices often wish to include certain information and data in their compensation formulas without being able to accurately develop that information. This gap can lead to conflict if any questions arise about the validity of the data. Thus, the data must be valid, verifiable, reproducible, and timely.

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3. *Select components to be used in the formula*. The philosophy of the practice regarding how complex to make the formula determines which components and how many components are used. Some practices, particularly those in single specialties, may pay everyone in an equal manner. Other practices may differentiate compensation on the basis of the numerous characteristics previously discussed.

4. *Meet with stakeholders*. Stakeholders must be involved to determine whether the development of the compensation model is on track. At this stage of development, the practice manager must verify that the components being considered in the formula meet the expectations of the stakeholders and are consistent with the philosophy of the practice.

5. *Model the results*. Once consensus has been reached on the basic elements of the compensation formula, the results must be modeled or simulated, to project what would occur if adopted, using data that are as close to actual practice data as possible. The model should be shared with the stakeholders so none are surprised and so unintended outcomes are avoided.

6. *Gain approval*. Understandably, few issues are more sensitive to members of the practice than compensation. Therefore, the practice manager and other leaders must be sure the physicians understand how the compensation formula works and the probable outcomes of its implementation. One suggestion is to provide a carefully written explanation of how each step is derived and how the physician can use the methodology to calculate their personal income.

7. *Implement the compensation plan*. This step may take at least three different forms. The first is to launch the new compensation model with a transition phase, especially if the practice is using a formula that differs substantially from the proposed model. The transition could take one of a number of approaches, such as an incremental implementation whereby a portion of compensation is determined by the old formula and a portion is determined by the new formula. The second form of implementation is to maintain the old methodology while tracking compensation using the new formula so that a comparison can be made. This approach may help reassure members of the practice that their compensation will not change drastically, which is often a fear when new compensation models are adopted. The third implementation form is a straight switchover. This approach may be risky and produce unnecessary anxiety because the practitioner does not have the benefit of a pro forma view of the change. If the compensation model has been carefully constructed with adequate input from the stakeholders and carefully modeled

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to see if it will result in the desired outcome, delaying its implementation serves little purpose and only focuses the individual practitioners on their self-interest.

8. *Review the outcomes*. Any compensation policy or method change in the practice should be reviewed on a regular basis to be sure it is functioning as intended. The sensitivity of compensation makes periodic review especially important. Often, this review is built into the implementation plan to reassure the practice members that any necessary adjustments will be made on a periodic basis. Compensation models change frequently in most medical practices in light of the dynamics of the medical care environment.

A general view of distributing income using a physician compensation formula for a practice is illustrated in exhibits 7.11 through 7.14. In this case, productivity, research, and quality metrics are factors in determining the final income of the physician.

Exhibits 7.12, 7.13, and 7.14 illustrate the income distribution process. In step 1, the compensation components are awarded to each of five physicians in the practice. Productivity is determined by the number of work RVUs produced by each physician, and points are awarded for quality metrics on the basis of a predetermined system, which may include a variety of outcome measures. The final measurement used in this formula awards points for clinical research. The totals are distributed to each physician as indicated in exhibit 7.12.

In step 2, relative percentages for each measure are determined as a straightforward calculation. In step 3, the total available income of $500,000 is divided on

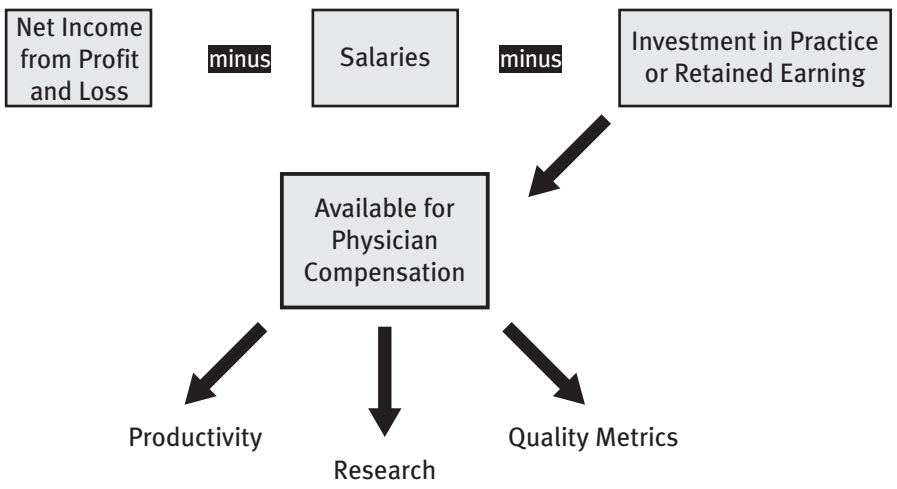


Exhibit 7.11 Basic Physician Compensation Framework

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Exhibit 7.12
Example Physician Compensation Model, Part 1

In this example, there is a total of $500,000 in income to allocate to the physicians based on the formula.

Each physician—A, B, C, D, and E—will receive a share of the income based on work RVUs (wRVUs). The number of wRVUs for each physician is determined as a percentage of the total.

Quality metrics are expressed on a predetermined point system, where a total of 20 quality points is divided between the five physicians based on the metrics the practice has decided to measure. This could be patient satisfaction or engagement, core measures, complication rates, or a multitude of other possibilities. The points compiled for each physician are then converted to a percentage of total points.

In a similar way, research credit is determined by allocating a total of 20 points using a predetermined measure of research activity, such as number of studies, number of papers published or submitted, or number of projects funded. The points accumulated are then converted to a percentage of the total points.

Step 1: Determine measurements for the practice and each physician.

Measure	Physician A Measure	Physician B Measure	Physician C Measure	Physician D Measure	Physician E Measure	Total for the Practice
Productivity (number of wRVUs)	1,000	900	800	1,200	1,100	5,000 wRVUs
Quality metrics	3	5	5	3	4	20 points
Research	4	3	5	5	3	20 points

In step 4, the distribution of dollars to each of the five physicians in the practice is transacted. Physician D received the highest allocation, largely due to his productivity and his research contribution.

This example is simple and straightforward, and in many practice situations, the income distribution formula is more complicated than the one illustrated here. Most practices use Microsoft Excel or other computer programs to calculate physician compensation, which allows for the easy incorporation of many factors and variables.

the basis of the predetermined weighting of each portion of the allocation measures, where in this case productivity represents 75 percent, or $375,000 of the total available for allocation; quality represents 15 percent, or $75,000; and research represents 10 percent, or $50,000.

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Step 2: Determine relative percentage of measure for each physician.

Measure	Physician A Measure	Physician B Measure	Physician C Measure	Physician D Measure	Physician E Measure	Total for the Practice
Productivity (number of wRVUs)	20%	18%	16%	24%	22%	100%
Quality metrics	15%	25%	25%	15%	20%	100%
Research	20%	15%	25%	25%	15%	100%

EXHIBIT 7.13 Example Physician Compensation Model, Part 2

Step 3: Determine the amount of income to be allocated in each category.

Productivity: $500,000 × 0.75 = $375,000
Quality: 500,000 × 0.15 = 75,000
Research: 500,000 × 0.10 = 50,000
Total to allocate: $500,000

Step 4: Determine the total dollar value for each physician by multiplying each category percentage by the dollar values available for allocation.

Amount to Allocate $500,000	Physician A Measure	Physician B Measure	Physician C Measure	Physician D Measure	Physician E Measure	Total for the Practice
Productivity (number of wRVUs)	20%	18%	16%	24%	22%	100%
$375,000	$75,000	$67,500	$60,000	$90,000	$82,500	$375,000
Quality metrics	15%	25%	25%	15%	20%	100%
$75,000	$11,250	$18,750	$18,750	$11,250	$15,000	$75,000
Research	20%	15%	25%	25%	15%	100%
$50,000	$10,000	$7,500	$12,500	$12,500	$7,500	$50,000
Total allocation	**$96,250**	**$93,750**	**$91,250**	**$113,750**	**$105,000**	**$500,000**

EXHIBIT 7.14 Allocation of Income to the Practice Physicians

NONPHYSICIAN PROVIDER COMPENSATION

Increasingly, nonphysician providers, including physician assistants and nurse practitioners, are compensated more like physician providers, using a formula containing a number of components. However, many nonphysician providers are still paid on an hourly or salaried

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basis, which may be supplemented by periodic bonuses for meeting standards in areas such as productivity, patient satisfaction, and quality.

Administering Value-Based Contracts

The administration of value-based contracts is a special area of practice management expertise that requires training and skills far beyond the scope of an introductory text. The following are some of the basic requirements for administering value-based contracts (Melling 2017):

1. Assigning the patient to a risk category and appropriate contract
2. Ascertaining whether the patient falls into a carveout or exemption
3. Assessing the extent to which the practice can produce a favorable outcome for the patient
4. Determining whether a care manager is needed to oversee the entire care episode
5. Determining whether the chargemaster is up to date and capable of supporting value-based care
6. Assessing whether the chargemaster can simultaneously support fee-for-service and fee-for-value billing
7. Determining whether it is possible to identify the cost of care across the entire episode
8. Putting in place a cost accounting system that can assess the medical practice's capability to deliver cost-effective episodic care
9. Deciding whether bills will show the final agreed-upon cost, price for the procedure, and price for the episode with all components
10. Assessing whether the process can be completed in a timely manner—that is, whether it is necessary to wait until the patient has achieved the proposed outcome, and if so, the effect on cash flow and billing

Such sophisticated financial management requires robust data systems and careful analysis of these data. The capital cost and expertise needed to effectively manage these contracts may be one reason why physicians are increasingly choosing to join larger healthcare organizations (Crockett 2020; Mandal et al. 2017; Melling 2017; Milanez and Strauss 2018).

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The Future of Practice Financial Management

Financial management in medical practice is likely to see dramatic changes. Currently, practices focus much attention on volume and some operational aspects of financial management. In the future, that focus will shift toward evaluation of outcomes in the context of new financial incentive systems in which services are reimbursed on the basis of the outcomes of the services provided rather than volume. Whereas now practice managers ask, "How many have we done?," in the future, payers may ask, "What good have your services done? And show us with data." This shift will have a dramatic impact on how physicians are compensated as value-based factors are increasingly incorporated into compensation models (Carr and Milliron 2014).

Discussion Questions

1. Identify the three primary types of costs in the medical practice and explain how they differ.
2. What is the main purpose of budgeting?
3. Describe the different components of the budgeting process.
4. What are the primary financial statements for the medical practice, and how is each used?
5. What are some benchmarks used in financial analysis for the medical practice?
6. Describe some of the factors used in physician compensation.
7. Discuss the complexities of managing value-based contracts.

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CHAPTER 8

HUMAN RESOURCES MANAGEMENT

They're not employees, they're people.

—Peter Drucker

Learning Objectives

- Describe the range of human resource functions in the medical practice.
- Appreciate the range of professionals that are found in medical practices.
- Articulate the steps in the hiring function.
- Understand regulations that are specific to the employment process.
- Illustrate the steps in managing change.
- Describe why leading change is important to medical practice management.
- Appreciate the importance of diversity, equity, and inclusion.
- Understand the significance of provider burnout.

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Introduction

Healthcare employment constitutes about 12 percent of the American workforce (Kaiser Family Foundation 2022). Hiring and sustaining a high-caliber staff are two of the most important functions of managing a physician practice. Without a properly trained and motivated staff, providing high-quality services to the practice's patients is difficult. An old saying in human resources management, "Hire for attitude, and train for skill," is particularly applicable today in the highly competitive medical practice environment, where patients have increasingly high expectations of their providers. Simply having technical skills is not adequate to build and maintain a successful practice. Staff must be able to engage patients in a positive and constructive way to earn their trust and satisfaction. Although data seem to conflict on this point, many researchers believe that engaged and satisfied patients are more likely to comply with the instructions of their providers than disengaged, unsatisfied patients, leading to better outcomes (e.g., Kane, Maciejewski, and Finch 1997). Another study by Fenton, Jerant, and Bertaski (2012) found little connection between satisfaction and clinical outcome; in fact, the researchers found that mortality was higher, as were expenditures and utilization, among more satisfied groups of patients. Other authors have observed this tenuous connection as well (Kennedy, Tevis, and Kent 2014). A more recent European study found satisfaction with physician–patient communication to be significantly correlated with better self-care and pharmaceutical adherence in patients with hypertension (Świątoniowska-Lonc et al. 2020).

The controversy has intensified as more physician payments are tied to patient satisfaction. Some issues that complicate our understanding of patient satisfaction are the lack of common definitions and measures of satisfaction and the complexity of defining what produces satisfaction, which goes far beyond the clinical or office experience (Berkowitz 2016). Regardless of the evidence, satisfying and engaging patients is a desirable goal for any practice, if for no other reason than it creates a pleasing practice atmosphere. Teams working in a complex environment like a medical practice must continually evaluate their situation and enhance their communication (Goñi et al. 2013; Weberg 2012).

The People in the Practice

A number of terms are used to describe medical practice employees in general, some of which are used synonymously. They include *teammate*, *associate*, *colleague*, and *staff member*.

Furthermore, a variety of terms are used to describe the physicians and providers of the medical practice—*medical staff* is a common phrase. Interestingly, physicians often refer to each other as *partners*, even when the practice is not an actual legal partnership. The term *partner* in this sense denotes the collegial relationship among the physicians of the practice.

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Exhibit 8.1
Nonphysician Practitioners Often Found in the Medical Practice

Nurse	Pharmacist	Physician assistant
Nurse practitioner	Allied health professional	Anesthesia technician
Art therapist/art psychotherapist	Athletic trainer	Audiologist
Cardiovascular technologist	Clinical laboratory scientist	Medical coder
Diagnostic sonographer	Dietitian/nutritionist	Electrocardiogram technician
Emergency medical technician	Environmental health officer	Exercise physiologist
Kinesiotherapist	Massage therapist	Medical assistant
Medical interpreter	Medical laboratory scientist	Medical radiation scientist
Music therapist	Neurophysiologist	Occupational therapist
Paramedic	Perfusionist	Phlebotomist
Practice manager	Public health epidemiologist	Physical therapist/ physiotherapist
Radiotherapist/radiation therapist/medical dosimetrist	Diagnostic radiographer	Recreational therapist
Rehabilitation counselor	Renal dialysis technologist	Respiratory therapist
Social worker	Speech and language pathologist	Surgical technologist

Practices may also employ a variety of nonphysician professionals. Exhibit 8.1 lists some of the nonphysician practitioners who may be found in the medical practice. The numbers and types of nonphysician practitioners vary dramatically from practice to practice, depending on the size, specialties, and services provided by the practice. Small, single-specialty practices may have few people on staff, whereas large, multispecialty practices likely employ several types of nonphysician practitioners.

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The Employment, Recruiting, and Hiring Process

Hiring new staff requires careful planning and preparation. Depending on the size and complexity of the practice, recruiting may be the responsibility of the practice manager; in large practices, that task is likely performed by a human resources department or hiring manager. The process should be similar to that described in this section regardless of who undertakes the endeavor. Physician recruiting may differ somewhat, and practice providers inevitably are involved in their hiring, whereas they may not be involved in nonphysician staffing. Often, physicians want to be involved in recruiting the members of the practice who will work directly with them.

Next, we discuss nine steps in the employment process, from identifying staffing needs to conducting interviews.

Step 1. Identify Needs

Before any action is taken, the practice must determine its specific needs regarding a potential new employee. This step is especially important if the position is new and not simply a replacement for a departing member of the practice. Often, this determination is made through the use of a quality improvement process, which may help determine how the position might change or whether the position is still necessary.

At the same time the job needs are being identified, the practice should clarify who will be responsible for overseeing the steps of the hiring process and who will conduct each step. Recruiting is a multistep process, and accountability for each step needs to be defined to ensure that no missteps or misunderstandings occur.

Step 2. Develop a Position Description

The position or job description is an essential document for the hiring process and beyond. It articulates the responsibilities and requirements of the job and identifies tasks and accountabilities. In addition to recruiting a new member of the practice, the job description may serve as key evidence in any defense against discrimination claims in hiring should they arise.

Job descriptions should focus on the requirements of the job and the skills and education needed to fulfill the position's duties. Importantly, they should leave as little decision-making to discretion as possible, as this could introduce bias. Therefore, the job description should be carefully worded to reduce the possibility of misunderstanding among all parties involved in the hiring process.

The position description should contain information about the essential functions of the job, the purpose of the job, minimum requirements, and preferred requirements.

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Distinguishing between minimum and preferred requirements is important to communicate to applicants that only those individuals with the minimum requirements will be considered for the job. Targeted, specific language contained in the job description also improves search engine optimization when attracting candidates.

Beyond the hiring process for a candidate, the job description can be a valuable tool in career planning and training. Some employees may aspire to other jobs in the practice, and the job description for those positions helps the practice manager or human resources staff member guide the teammate in understanding the training and experience needed to achieve their goals. It is a blueprint for building a career.

Step 3. Develop a Recruiting Plan

Once the job description has been created or updated, a recruiting plan for the position needs to be developed, which includes the following:

- Where will the job be posted to attract candidates? Recruiters have many options: online job boards, advertisements through professional societies, ads in local and national publications, word of mouth, and direct contact with training programs are a few. Asking current employees to refer qualified candidates is also an attractive option.
- How long will the posting appear? Although no specific standard is recommended for the optimal duration of a posting, it should be long enough to receive an adequate number of qualified candidates. In many cases, the position is posted until filled.
- How will resumes and applications be managed? In medical practices, this is an important consideration. Depending on the size and complexity of the practice, the practice manager or members of the practice dedicated to human resources management may be the primary people responsible for recruiting. In other cases, multiple individuals (e.g., a committee) may be involved if many stakeholders have a vested interest in the recruiting process. Hiring a new practice manager or administrator might be an activity for which a committee should be formed. In the case of hiring clinical staff, the physicians may wish to be involved, especially when, as noted earlier, the person being hired will work directly with them.

In some cases, the practice may use an outside recruiting agency if the internal capabilities of the practice are limited in the human resources area.

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Step 4. Implement the Recruiting Plan

During this step, the practice posts the position opening on job boards, career sites, and organizational job boards selected for appropriateness and reach to desired candidates. For example, the American College of Healthcare Executives and the Medical Group Management Association host extensive online job boards that are visited frequently by members of these organizations and are an excellent target audience for several practice positions. In some cases, newspapers and professional journals may be appropriate places for advertising the open position.

Step 5. Receive and Review Applications

During this step, candidate applications should be compared against the criteria established in the job description. A spreadsheet or another tool that allows the recruiter to list each applicant's name followed by the job criteria they meet—or fail to meet—can be helpful in narrowing down the choices to the most qualified candidates for further review.

Step 6. Conduct Interviews

The interview process may be divided into two phases. The first phase typically involves a telephone or video (e.g., Zoom) interview with candidates who appear to meet the criteria established for the position. This phase is useful when several candidates meet the minimum qualifications or when some of the candidates would have to travel a long distance for a face-to-face interview. After this initial round of interviews is completed, face-to-face interviews with the top candidates are conducted.

Interviewing is an important skill set that should be developed by the members of the practice engaged in hiring. The sophistication of the interview is largely determined by the background and experience of the interviewer and the amount of recruiting the organization has performed (the main reason some organizations use recruiters).

Interviews can be undertaken by the recruiter along a spectrum of difficulty. Some interview approaches are considered light on substance or easy for the interviewee to perform well in, called softball interviews. On the surface, this tactic might sound appealing, but it is not recommended. The number one reason new members fail at a job is that they prove to be a poor fit with the organization. A rigorous but respectful and fair interview process helps to ensure a good fit. Few people set out to do a bad job in a new position; to help them succeed, the recruiter should articulate during the interview what is expected in the role and how the candidate's qualifications match up to these expectations.

A rigorous interview process does not involve treating candidates rudely or disrespectfully. The interview is likely the first opportunity the practice has to demonstrate to prospective employees or medical staff how it treats its employees, and it reflects on you as a manager.

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Recruiting is a high-stakes undertaking for the practice to ensure that the "right" person is hired. One suggestion for gaining insight on how interviewees will fit with the practice is to watch how candidates interact with others. Are they courteous to everyone? Do they say hello to the receptionist and the housekeeping staff or any other practice members they meet? Do they smile? These are clues to the emotional intelligence (EQ) of the applicant. (EQ is discussed in more detail later in this chapter.) Applicants are likely on their best behavior, so negative signs about their interactions with other people may be an important indicator of future performance with patients and other employees.

Possible Candidate Interview Questions

A key aspect of effective interviewing is to have a prescribed process in place that is applied consistently so that all candidates are asked questions that are similar in scope and specifics. Prescribed interviewing allows for a fair evaluation of candidates.

Interview questions vary significantly depending on the nature of the position and the skills required, but some recommended general questions to ask are as follows:

- Tell me about yourself.
- What are some of your personal and professional achievements?
- What are the critical factors for a satisfying practice for you?
- What factors will have the largest impact on your decision as to whether to join us?

The following additional questions can elicit insight on a candidate's strengths, weaknesses, and leadership abilities:

- Tell me about your interpersonal style.
- How do you get along with others?
- Do you like working as part of a team?
- How do you manage conflict?
- Tell me about a time you had to deal with a difficult situation with a colleague, someone you reported to, and someone who reported to you.
- What type of people do you have trouble working with?
- What type of patients do you have trouble dealing with? (This question is often specified on the basis of specialty.)
- How do you respond when you have problems with someone?

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- What have you heard about our practice or organization that you have questions about or don't like?
- What interests you most about our practice/organization?
- Where do you see yourself in five to ten years?
- Why should I hire you?
- What kinds of situations or occurrences make you angry?
- How well do you work under pressure?
- Do you consider yourself a flexible person?
- What motivates you?

Questions You Should Never Ask

Personal questions that could form a basis for discrimination, such as questions about race, ethnicity, age, gender, sexual orientation, or marital status, or whether an applicant is planning to have children, should never be asked. Even questions about how the person will get to work can be interpreted as discriminatory and may lead to legal action if the applicant is not hired. The practice has a right to require staff to arrive on time for their scheduled shift, but how they get there is not the practice's concern. The best—and only—questions to ask are those that relate to the job and to the person's ability to perform the job functions.

Questions the Applicant Might Ask

Asking applicants whether they have any questions is an accepted and appropriate aspect of the interviewing process. Following are some common questions that may be asked by applicants:

- What is the scope of the practice?
- What qualifications are you looking for in a candidate?
- Tell me about a typical workday or workweek.
- Why is the practice recruiting?
- What are the plans for the practice?
- Can you tell me more about the practice's community involvement?

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- Which hospital(s) does the practice use?
- Can I meet other members of my department?
- Does the practice plan to offer any new services in the near future?

Step 7. Decide Which Applicant to Hire, and Make the Job Offer

The decision to hire an applicant may be made in a number of ways. In some organizations, the hiring manager or practice leader meets with practice members with whom the candidates will be working to hear their impressions of the candidates. Depending on the nature of the job and the size of the practice, physicians and other staff may also be involved. It is always a good idea to involve as many people as possible who will be in contact with the new hire. This is especially true of the smaller practice, since everyone will likely work in closer proximity to one another.

Making the job offer usually begins by contacting the successful applicant by telephone and offering them the job. Any verbal offer must be followed up with an offer letter that specifies the salary and benefits being offered, as well as other important details, such as the employment start date. The letter should also state that the offer is subject to the findings of a prehire health screening and background check (see step 8) and should request acknowledgment of the offer with the candidate's signature indicating formal acceptance of the job.

Step 8. Conduct Prehire Health Screening and Background Check

Medical practices engage in some of the most important human interactions people experience in life, and this role underscores the need for practices to employ dependable, honest teammates. One recommended hiring practice is to conduct a prehire health screening for drug use and a criminal background check for all new employees. Using a professional agency for screenings is advisable for smaller practices because of the special and sensitive nature of this task; the practice must avoid mistakes that could cause legal repercussions or the loss of a great employee.

Step 9. Welcome and Onboard the New Employee

The practice should develop a thorough onboarding process for all new members. It should include activities as mundane as the location of their workspace, restrooms, and break facilities to those as specific as a detailed review and training regarding the specific job. See exhibit 8.2 for a sample onboarding checklist.

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Exhibit 8.2 Example Onboarding Checklist

What Needs to Be Done?	Who Will Do This?	When Does It Need to Be Done?	Status	Notes
Complete installation and acquisition for computer and software, new employee e-mail, etc.	Designate a team member			Determine whether there are any special requirements
Select a location in building				Indicate solution
Supplies for office	Designate a team member	Before the employee begins		
Complete practice orientation	Team members		Give orientation checklist	
Talk with new employee's leader about her expectations of the role			Schedule	
Assign a team "buddy"	Designate team members	Immediately on arrival		Who will be the go-to person to answer questions and check on how things are going?
Introduce to all team members and provide opportunity to become familiar with current work	Designate team members	By the end of the first 2 weeks		
Meet other leaders	Department buddy/ leadership	Within the first 30–60 days		

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Exhibit 8.2 Example Onboarding Checklist *(continued)*

What Needs to Be Done?	Who Will Do This?	When Does It Need to Be Done?	Status	Notes
Use Departmental Orientation Checklist to provide information on specific issues and topics	All listed on the attached orientation document	Ongoing	Bring to new hire's attention on the first day and give them a copy; a lot of whom to go to for what items and resources they may need	
First 30 Days Schedule—includes orientation, lunches, training, regular meetings, first 30-day check-in				
View facilitator's guide	New employee should review			

Sources: Fallon and McConnel (2013); Sampson and Fried (2023).

Talent Management

Managing the human resources of the medical practice requires attention to a number of important elements, including performance management, compensation and benefits, and development of each person's potential.

Performance Management

Each practice determines what factors are most important in setting goals, measuring performance, and assessing and reviewing employees. Although many organizations

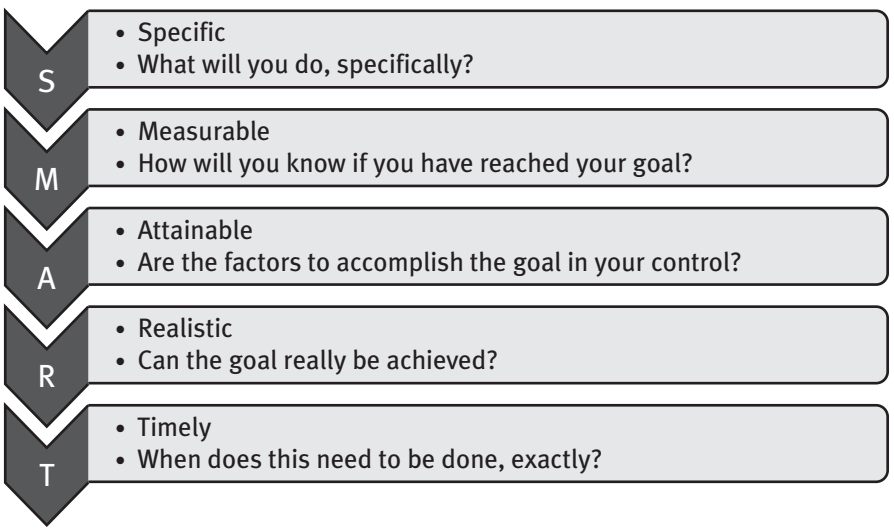
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consider performance management to be a perfunctory activity conducted once a year, high-performing practices recognize the importance of these functions. Performance, or talent, management activities should be ongoing throughout the year and form the basis for many of the interactions that employees, managers, and supervisors have with each other.

Some important components of the talent management process include the following:

- *Goal setting*. Goals should be framed in terms of the SMART method: specific, measurable, achievable, realistic, and timely. The manager and the employee should work together to construct meaningful SMART goals and base performance measurement on them. Exhibit 8.3 shares a defining question to help clarify each element of the SMART goal design.
- *Performance measurement*. Measurement should be based on predetermined indicators of success in achieving the goals established for the employee. Measurement should be credible and easy to observe or document, and the manager and employee should be in agreement that they are reasonable expectations for the job. The employee should be able to check their progress at any time so that when a formal review is undertaken, no or few surprises are encountered.
- *Assessment and review*. Many processes are available for conducting performance reviews, either manually or electronically. Managers typically think of performance assessments in terms of nonprovider employees, and

Exhibit 8.3
SMART Goals



Source: Doran (1981).

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certainly tools for reviewing the performance of providers are less common, but conducting provider assessments is an essential element of effective practice management. Exhibit 8.4 is an example of a provider assessment tool.

Whether for a nonprovider or a provider, assessments and reviews should be based on the practice's values, the important competencies required for the job, and achievement of the goals established by the employee and their manager. Reviews are an opportunity for staff development; ideally, assessment and review should not be tied to compensation adjustments. This is not the common approach, but in the experience of the author, it is a recommended strategy, as it increases employee satisfaction, enhances employee development, and increases employee aspiration attainment. Everyone wants to feel they are appreciated, cared about, and encouraged to grow.

EXHIBIT 8.4
Provider Assessment Tool

Physician Assessment

	Always	Often	Sometimes	Occasionally	Never
1. I communicate effectively with patients.					
2. I communicate effectively with patients' families.					
3. I communicate effectively with other healthcare professionals.					
4. Within the range of services I provide, I perform technical procedures skillfully.					
5. I maintain quality medical records.					
6. I select diagnostic tests appropriately.					
7. I critically assess diagnostic information.					
8. I make the correct diagnosis in a timely fashion.					
9. In general, I select appropriate treatments.					
10. I handle transfer of care appropriately.					
11. I provide a clear understanding about who is responsible for continuing care of the patient.					
12. I communicate information to patients about rationale for treatment.					
13. I recognize psychosocial aspects of illness.					
14. I maintain confidentiality of patients and their families.					

(continued on next page)

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EXHIBIT 8.4
Provider Assessment Tool *(continued)*

	Physician Assessment				
	Always	**Often**	**Sometimes**	**Occasionally**	**Never**
15. I coordinate care effectively for patients with other healthcare professionals.					
16. I coordinate the management of care for patients with complex problems.					
17. I respect the rights of patients.					
18. I collaborate with medical colleagues.					
19. I am involved with professional development.					
20. I accept responsibility for my professional actions.					
21. I manage healthcare resources efficiently.					
22. I manage stress effectively.					
23. I participate in a system of call to provide care for my patients when unavailable.					
24. I recognize my own limitations.					
25. I handle requests for consultation in a timely manner.					
26. I advise referring physicians if a referral request is outside of scope of my practice.					
27. I assume appropriate responsibility for patients.					
28. I provide timely information to referring physicians about mutual patients.					
29. I critically evaluate the medical literature to optimize clinical decision making.					
30. I facilitate the learning of medical colleagues and coworkers.					
31. I contribute to the development of quality improvement programs and practice guidelines.					
32. I participate effectively as a member of the healthcare team.					
33. I exhibit professional and ethical behavior toward my physician colleagues.					
34. I show compassion for patients and their families.					

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Compensation and Benefits

The way physicians are compensated in practices is often different than for other employees of the practice. Therefore, for purposes of this discussion, we consider physician compensation separately in chapter 7. Here, we focus on the compensation of the other members of the practice.

Exempt and Nonexempt Employees

Nonprovider employees are usually divided into two categories—exempt and nonexempt—and are governed by the Fair Labor Standards Act (FLSA). With few exceptions, to be exempt, an employee must meet the following guidelines:

- Be paid at least $684 per week
- Be paid on a salary basis
- Perform exempt job duties (e.g., executive, professional, administrative)

These requirements are set by the US Department of Labor (2019) and outlined in the FLSA regulations. Most employees must meet all three of these tests to be exempt.

Professional Development

Each person working in the medical practice should have an individual development and aspirational plan. The steps for establishing this plan are as follows:

1. Determine goals and the reason for development.
2. Identify what skill area the person would like to learn or improve on.
3. Pinpoint what actions the person needs to take to address this need.
4. Define the ways in which the practice can help the person make advances on the plan.

Frequent follow-up meetings should be held to check in on progress and a tracking mechanism developed to reflect what has been learned and achieved.

Employment Policies and Procedures

Every physician practice must have in place carefully crafted and maintained policies and procedures regarding employment. Employment policy establishes the standards for

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performance and conduct for all employees and provides employees with information about the terms of their employment. Common areas addressed in a set of employee policies include the following:

- Welcome for new employees
- Background information on the practice
- Statements regarding antidiscrimination
- Business ethics and conduct
- The employment process
- Disciplinary action and processes
- Prohibitions on outside work or hiring of relatives
- Privacy and security
- Terms of employment
- Performance evaluations
- Payroll functions
- Working conditions and working hours, which may include permissible conditions of computer usage or e-mail usage
- Corporate compliance
- Patient care
- Occupational Safety and Health Administration issues
- Emergency procedures

Employee benefit programs, as part of an employee's compensation, are another area to be formalized and documented. These programs vary greatly among practices, but they typically include some or all of the following:

- Paid time off
- Bereavement leave
- Jury duty pay
- Health insurance

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- Disability insurance
- Dental insurance
- Retirement benefits
- Military leave

Employment policy should be updated on a regular basis and refresher sessions given to the practice members to avoid misunderstandings and to ensure that employees have the opportunity to receive the benefits they are entitled to. The practice leader should request acknowledgment by all staff members, with their signature indicating that they have read and understand the policies and procedures and will abide by them.

Organization Development

According to Warren Bennis (1969), organization development is concerned with the effectiveness of the organization in carrying out its mission. It focuses on strategies and interventions intended to influence the mission, beliefs, values, and behaviors that affect the performance of the practice. In many ways, the modern medical practice should rethink the way it accomplishes its work and how it structures and manages its relationships with other entities. As healthcare becomes more of a collaborative effort and more team based, building good relationships becomes increasingly important.

Communication is a cornerstone of high-quality care and of employee development and interaction. It is also essential to organization development. Effective communication leads to understanding and trust, which can result in improved compliance, outcomes, and satisfaction for patients and employees. The results of effective communication are illustrated in exhibit 8.5.

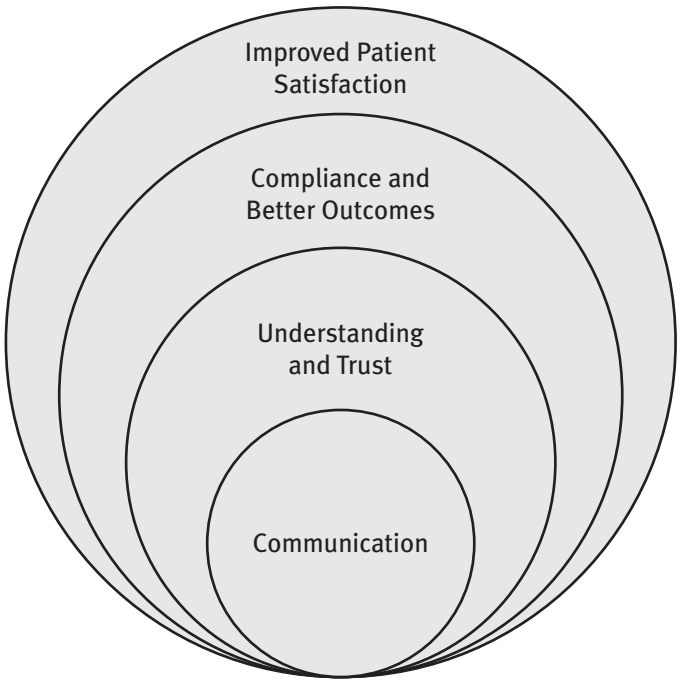
Employee Development

We cannot develop our organizations if we do not develop our employees. Earlier in this chapter, we discussed a performance management strategy that focuses on fairness and encouraging employees to nurture their own aspirations. This is a major part of employee development. Fair compensation is also an important part of this development.

Other important aspects of employee development include *coaching* and *mentoring*. These two terms are often used interchangeably, although coaching often involves a supervisor–employee relationship in which one-on-one discussions take place to enhance the performance of the individual or resolve problems, while mentors are often not in direct contact with the employee on a day-to-day basis. Mentorships are mutual and entered into voluntarily; they may be more aspirational in nature than coaching relationships, and they

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Exhibit 8.5
Communication Is the Cornerstone of Good Care



involve one-on-one discussions about the mentee's future and steps to take toward achieving personal goals (Reitman and Benatti 2021). A practice manager can serve as both a coach and a mentor.

Change Management

US society has seen more change in the past 100 years than the rest of human history. One of the great challenges in medical practices today is dealing with the rapid rate of change (Kurzweil 2001). As discussed in chapter 1, the medical practice is faced with a perfect storm of change. However, people are not well equipped to deal with change; in fact, humans' neurobiological makeup is designed to resist change.

Change involves the shifting of paradigms and requires people to adjust their mindset about how they think things should be. A paradigm is a powerful force that resists change and anchors people to the status quo, dictating how they make decisions.

Some of the great developments of the twentieth and twenty-first centuries include the automobile, Swiss watches, personal computers, the internet, smartphones, the advent of online education, and the evolution of medical practice. All these developments and many

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others required paradigm shifts to be successful, and in almost every situation, prominent naysayers did not believe in the paradigm shift. The first cars were met with bemusement and ridicule. The Swiss watch industry, itself calling for an adjustment to portable time keeping, virtually collapsed following the paradigm shift to quartz movement timepieces.

Change management is a key skill set for leadership and the management of the medical practice now and into the future. To address **organizational change**, we consider the use of an effective change model such as the PAST model, illustrated in exhibit 8.6 and discussed in detail next.

Organizational change A process by which the organization evolves to help it adapt to a new set of environmental and competitive factors.

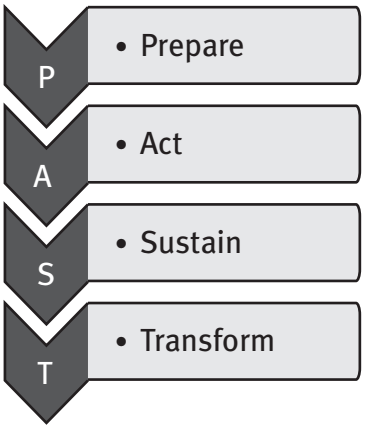
The PAST Change Model

The components of the PAST change model (developed by the author) are prepare, act, sustain, and transform.

Prepare

Make the Case for Change

Members of the practice must be educated about the factors surrounding the need to change and come to understand why change is necessary. Members of the practice who do not believe change is required will be resistant, and any efforts to change will likely be



Prepare the case for change
- The emotions of change
- Assess gaps in readiness

Act
- Assess current state
- Design and develop
- Implement and measure

Sustain
- Reinforce change
- PDSA cycle
- New standard work

Transform
- Define standards, not rules
- Set expectations
- Feedback and accountability

Exhibit 8.6 The PAST Change Model

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unsuccessful. Stated another way, this understanding creates the foundation for meaningful and effective change management.

Anticipate the Emotions of Change

Change is an emotional process. Negative emotions often arise from the perception that change is dangerous. Staff often wonder whether they will be needed in the future or if they will be able to learn the new procedures or processes. The easy position to take is, "I am comfortable with the way things are."

The practice manager needs to recognize that these emotions are natural. Furthermore, they will evolve during the change process, progressing through stages that are similar to the stages of dealing with loss popularized by Elisabeth Kubler-Ross (1969) in her seminal work *On Death and Dying*:

1. *Shock and denial*. Change is sometimes difficult to acknowledge.
2. *Anger and blame*. Once people come to believe change must happen or is already happening, they tend to express anger about it. This anger needs to be expressed and acknowledged so that it can be processed and allowed to dissipate.
3. *Bargaining*. Individuals facing change next turn to bargaining by offering a trade-off to avoid the change, which by now is recognized as inevitable. The trade-off typically takes the form of a promise to behave differently if the change isn't implemented.
4. *Depression*. Like death, change can feel bleak. Practice members should be encouraged to support each other through the sadness and seeming hopelessness of change.
5. *Acceptance*. Eventually, people experiencing change begin to accept it as reality. Those who face it proactively and support others throughout the process tend to adapt in due time, grow comfortable with it, and see its positive attributes.

Not everyone moves through each stage in a sequential fashion; some may regress and pass through stages more than once. How long does this process take? The answer depends on how significant the impact of the change is on the individual, how well they prepared for change, and how effectively the leadership guides them through the change process. One way to help people through the emotions of change is to have them answer questions about the change. This idea is rooted in the neuroscience of change: In an emotional state, people do not process information; by asking themselves questions, they reengage their forebrain (thinking brain), which allows rational thought to occur about the

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change. The practice manager should also be available to answer questions and to reassure staff, as appropriate, about the change. In the absence of knowledge, people tell themselves stories about a change, and those stories are usually more dire than the actual change.

Individual differences in how people process change need to be considered in this process. Managers who have heightened awareness of individual practice members' emotions engage them differently depending on how they are dealing with change. Open dialogue helps the practice members through the emotions of change as well. Conversations around how staff are feeling can bring issues to light that can then be addressed.

Assess Gaps in Readiness

In managing change, consider the readiness for change. Readiness can be evaluated in formal as well as informal ways.

Virtually all the formal assessment tools assess readiness at the leadership, organizational, personal, and technological levels. These tools are available from commercial vendors and consultants. Informal assessments are also useful in change management. In some cases, readiness can be determined simply by asking people the following questions:

- How do you feel about this change?
- What are your fears and concerns?
- What information do you need to feel comfortable with the change?

Act

Assess the Current State

Assessing the current state of the process to be changed or of the organization as a whole is important in change management and should be the first step in the action phase of managing change. One approach to this assessment is to flow-chart current activities to validate the proposed change in consideration of enhancing patient flow, productivity, stakeholder satisfaction, or other needed areas of improvement.

Design and Develop

What will this change look like once it is implemented? This is one of the key questions to consider in the design and development phase of change. A clear pathway from the current state to the new state needs to be established, with signposts to mark progress and assignments of responsibility shown along the way. Before changes are implemented, it is important to consider how the practice will determine if the change is successful. Predetermined measures are essential. So often we implement a change and then retrospectively

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evaluate success without clear standards for measuring that success. Because we all want to be successful, it is natural that we tend to look for measures that may have little impact on the success of the practice as a way of measuring the success of the change. Practice managers need to exercise rigor when evaluating change because not all change will produce the desired results.

Implement and Measure

At this stage of change management, implementation begins with sharing the vision for the change. Then, the following steps are taken:

- Define roles: Who will do what? How will their role or job change?
- What are the goals of the change, in the short and longer term? This needs to be shared clearly and repeatedly.
- Determine milestones for the progress of the change.
- Share progress with all concerned.
- Celebrate successes and milestones.
- Evaluate and adjust as needed. Things do not always work as planned, so accept suggestions and be open to additional ideas.

Sustain

Implement the Plan-Do-Study-Act Cycle

A mechanism for continuous process improvement must be in place to continue positive changes into the future. The Plan-Do-Study-Act (PDSA) cycle is an effective tool to help sustain and continue improvement. Rarely does a change produce all the desired results when first implemented; therefore, continuous improvement is a desirable aspect of change management.

The PDSA cycle is easy to understand and apply to process improvement efforts. Exhibit 8.7 offers a graphical representation of PDSA, and its components are delineated in exhibit 8.8.

Reinforce Change by Adopting New Standard Work Processes

Among the most difficult aspects of undertaking a change process is sustaining that change. Returning to the old methods or procedures over time is not unusual and, in fact, can occur quickly. To prevent reversion, change must be reinforced through the development of new

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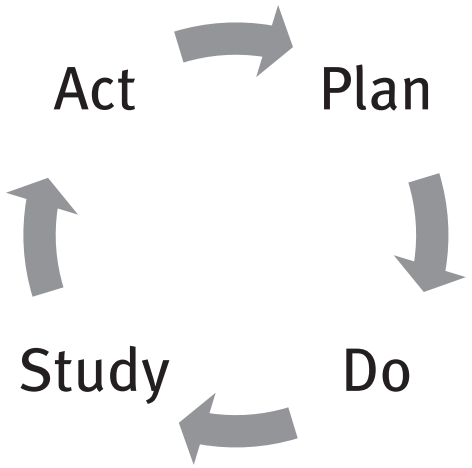


Exhibit 8.7
The PDSA Cycle

standard work. New standard work documents the new way of doing things and comes with the expectation that everyone uses the new process. The manager needs to verify that the new standard work process is consistently used; otherwise, they will have no way to determine with certainty whether the change works as intended.

Consider this simple example. I want to stop eating cookies, and I adopt a new standard work to not purchase them and bring them home, because no matter how much willpower I have, if those cookies are easily available, I will eventually succumb to the temptation and eat them. In the same way, a new standard work replaces the old standard, making reversion to the old way of doing things difficult and increasing the likelihood that the change will be successful.

Additional tools, ideas, and suggested methods for improvement are available from the Institute for Healthcare Improvement (2017) and the Deming Institute (2023).

Transform

Changes in practice management are intended to be transformative, meaning they significantly affect the practice. To hardwire transformative change, the following guidelines should be followed:

- *Define standards, not rules*. Everyone involved needs to be clear about the expected outcomes so the change is not just a rote process.
- *Set expectations*. Simply stated, you get what you ask for. A practice manager should never assume people know what they are expected to do; they must let them know.

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Exhibit 8.8
Detailed Steps in the PDSA Cycle

Step 1. Plan

Assemble a team that has knowledge of the problem or opportunity for improvement.

- Identify roles and responsibilities.
- Establish timelines.
- Develop a meeting schedule.

Develop an aim statement.

- Try to answer these three fundamental questions:
  - What are we trying to accomplish?
  - How will we measure improvement?
  - What change will result in improvement?

Describe the current process.

- What is the practice doing now?
- What are the major steps in the process?
- Who is involved?
- What do they do?
- What is done well?
- What could be done better?

Possible tools to consider in this step:

- Check sheets
- Control charts
- Strengths, weaknesses, opportunity, and threats (SWOT) analysis
- Run charts
- Fishbone diagrams
- Scatterplots
- Nodes of influence analysis
- Affinity diagrams
- Brainstorming
- Flow diagrams
- Focus groups and focused conversations
- Prioritization matrix

Describe the problem.

Using the aim statement, indicate what the practice wants to accomplish. Use data that are available. For example, if your objective is improving patient satisfaction, you might look for data in the patient engagement survey about items such as waiting time.

Write a problem statement.

Write a problem statement to summarize the consensus of the problem. For example, "Waiting times are too long because there are not enough doctors in the office at one time." Do not suggest a solution at this step.

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Exhibit 8.8
Detailed Steps in the PDSA Cycle *(continued)*

Identify causes and alternatives.

- Consider the cause.
- Work to identify causes of the problem using tools such as
  - Process control charts
  - Fishbone diagrams
  - Flowcharts

Examine the practice process and ask questions about the efficiency, cost, and variation in how the process is done. The PDSA team can then consider alternatives that they believe will address the objective. This can often be done by filling in the blanks of the simple statement, "If we do _____, then _____ will happen."

- Select an option to try from the alternatives identified.

Develop an action plan that outlines all resources that are needed, including people, materials, and the time involved.

Step 2. Do

Implement the selected alternative. It is important to collect data to determine if the improvement is successful. For example, if waiting time was selected as the problem, then measuring waiting time after the intervention is implemented would provide evidence of improvement.

Step 3. Study

Did the team's actions result in an improvement? Was the improvement worth the cost? Consider, for example, if waiting times only improved a small amount, it might not be perceived as an improvement by the patients and, therefore, might not be worth the cost of implementing the change. Alternatively, it may be worthwhile to consider other actions that might have a larger impact on waiting times.

Ask more questions: Are there any trends, new insights, or findings that the PDSA cycle uncovered? Were there unintended consequences of the action that were unexpected and potentially created additional problems?

Use process improvement tools to study your results. This could include flowcharts, process control charts, Pareto charts, and many others.

Step 4. Act

It is important to reflect on the actions taken and see if additional improvement can be made by additional PDSA cycles. The new process needs to be standardized and incorporated into daily practice.

Finally, it is always important to celebrate improvements and share lessons learned. This includes the following:

- Communicate to all stakeholders what is being done
- Sustain your accomplishments through new standard work
- Plan for additional improvements

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- *Establish feedback and accountability mechanisms*. Accountability cannot occur without feedback. Absent feedback, a practice cannot improve or achieve a high level of performance.

The Influencer Model for Change

Another effective model for addressing change in a medical practice is the influencer model, developed by VitalSmarts and described in the book *Influencer: The Power to Change Anything* (Patterson et al. 2008). As shown in exhibit 8.9, the influencer model focuses on what motivates people to change, or wish to change, and their ability to make required changes. The ability to change involves the availability of necessary resources, the permission to act, and the knowledge to act.

Further, the influencer model suggests that change occurs at three levels: structural, social, and personal. Finally, the model is underpinned by the fundamental concept of vital behaviors that are demanded of all members of the practice to ensure accountability. Being accountable is a necessary element of professionalism in the medical practice; those who lack it must change to make professionalism a reality.

Conflict Management

The modern medical practice is home to an increasingly diverse set of interests among its many stakeholders. This diversity inevitably produces conflicts. To address issues of discord, conflict management has become an important skill set for practice managers. Among the most useful tools for managing conflict is the Thomas-Kilmann Conflict Mode Instrument (TKI). As with many organization development tools, the TKI allows the individual and the group to self-assess their preferred conflict resolution style and, importantly, to understand the importance of using the five different styles in different situations (Kilmann Diagnostics 2023):

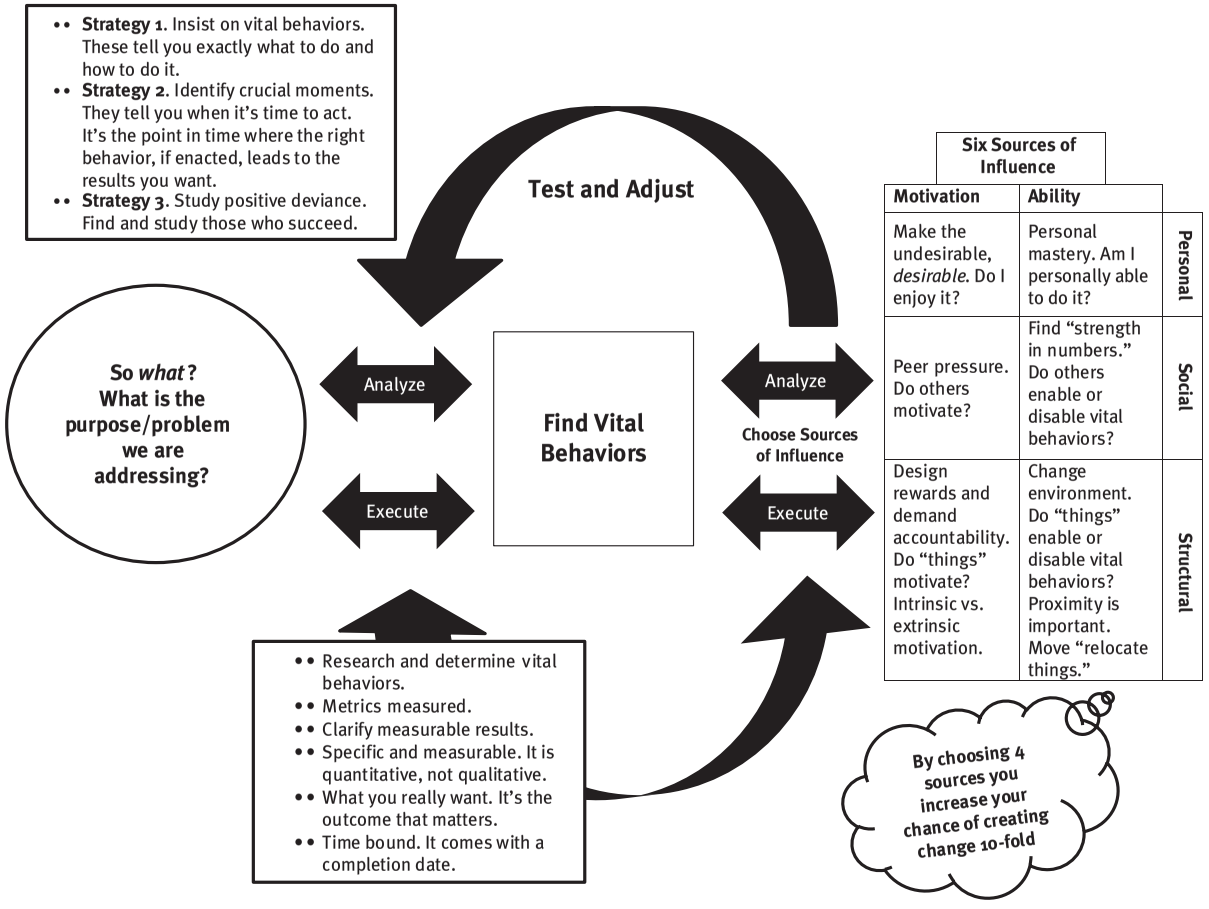
- Competing
- Compromising
- Collaborating
- Accommodating
- Avoiding

Self-assessment leading to self-awareness is critical to conflict management. Leaders must create awareness of their tendencies, preferences, and behaviors. A number of

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EXHIBIT 8.9

Influencer Model for Change



Six Sources of Influence

Motivation	Ability	
Make the undesirable, *desirable*. Do I enjoy it?	Personal mastery. Am I personally able to do it?	Personal
Peer pressure. Do others motivate?	Find "strength in numbers." Do others enable or disable vital behaviors?	Social
Design rewards and demand accountability. Do "things" motivate? Intrinsic vs. extrinsic motivation.	Change environment. Do "things" enable or disable vital behaviors? Proximity is important. Move "relocate things."	Structural

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commercial products are available that measure aspects of temperament, personality, and behaviors. They include the following:

- The Management by Strengths Survey (Management by Strengths 2023)
- DiSC (DiscProfile 2023)
- The Predictive Index (PI 2023)

A concept that complements awareness is emotional intelligence (EQ). It was popularized by Daniel Goleman (1995) in his seminal work *Emotional Intelligence: Why It Can Matter More than IQ*. Goleman discusses four critical attributes of emotional intelligence:

- *Self-awareness*, which includes developing emotional self-awareness and self-confidence and having an accurate assessment of oneself and how one responds to others
- *Social awareness*, which involves having organizational awareness, being service oriented, and having empathy for others
- *Self-management*, which revolves around self-control, being trustworthy, being conscientious, being adaptable, being achievement oriented, being driven to succeed, and having initiative
- *Relationship management*, which is composed of a group of traits relating to being influential, being an inspirational leader, developing others, having influence with others, building lasting bonds with stakeholders, and having an orientation toward teamwork and collaboration

Underestimating the importance of EQ is difficult when one considers its emerging role in evaluating and compensating practices to assess the quality of their care. The Medicare Access and CHIP Reauthorization Act and other pay-for-performance programs place a high premium on EQ. For example, the patient satisfaction metric, which is tracked by virtually all healthcare organizations, relies heavily on the EQ of physicians and other practice members to effectively deal with patients and their families.

Diversity and Inclusion

Diversity and inclusion are critical components of modern medical practice. Medical professionals serve a diverse population of patients, and it is essential that they have the necessary skills and knowledge to provide culturally competent care. Practice leaders must understand the importance of diversity and inclusion in the medical practice and

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Exhibit 8.10
Dimensions of Diversity

Age	Income and insurance status
Beliefs about healthcare	Parental status
Disabilities	Prior experience with the healthcare system
Education	Race
Ethnicity	Religious beliefs
Gender and gender identity	Sexual orientation
Geography	Work background
Health literacy	

how it can improve the quality of care for patients (Eckstrand, Lund, and Yehia 2017; Stanford 2020).

Diversity in medical practice refers to the range of patients that medical professionals serve. Patients come from different backgrounds, ethnicities, cultures, religions, and genders, and it is crucial for medical professionals to recognize and respect these differences. A patient's background can have important impacts on their health outcomes, health behaviors, and attitudes toward healthcare providers. Exhibit 8.10 lists some of the many dimensions of diversity.

Inclusion in medical practice refers to the ways in which medical professionals interact with patients. Inclusive medical practices create a welcoming and supportive environment for all patients, regardless of their background or identity. This approach ensures that patients feel comfortable sharing their health concerns with their healthcare provider, which is essential for an accurate diagnosis and effective treatment (Lee et al. 2020).

At the heart of diversity and inclusion is the ability to communicate effectively with patients and their families. Communication is an essential element of many aspects of human interaction, particularly in the healthcare delivery environment. Communication leads to understanding, which leads to trust, which then increases the likelihood that patients will adhere to the instructions of the provider. Patients are more likely to trust their healthcare provider when they feel heard, understood, and respected. Inclusive medical practices help to build strong patient–provider relationships (Wesson, Lucey, and Cooper 2019). Enhanced communication also promotes patient satisfaction, which is becoming increasingly important in today's outcomes-based reimbursement system.

Further, diversity and inclusion are critical in medical practice because they help improve health outcomes. Research has shown that patients who receive care from healthcare providers who are culturally competent have better health outcomes. Culturally competent healthcare providers understand the cultural beliefs and practices of their patients

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and can tailor their treatment plans accordingly (Gomez and Bernet 2019; Rosa Dias and O'Donnell 2013).

Diversity and inclusion in medical practice can also help reduce health disparities. Health disparities are preventable differences in health outcomes and access to healthcare services among different groups of people. These disparities are often the result of systemic racism, bias, and discrimination. By creating an inclusive and culturally competent medical practice, healthcare providers can reduce these disparities and ensure that all patients receive high-quality care (CDC 2023; Esnaola and Ford 2012; Greene and Long 2021).

Everyone in the medical practice must be aware of and actively defend against conscious and unconscious bias. Bias is a fact of the human condition; to pretend that one has no bias or to allow another's ignorance and bias go unchallenged is unacceptable in the modern medical practice. Practice managers should engage the members of the practice in education related to diversity and addressing bias. Policies should clearly state the practice's intention to promote diversity and inclusion.

Cultural Competency

Cultural competency in the medical practice refers to the ability of healthcare professionals to understand, respect, and effectively communicate with patients from diverse cultural backgrounds. This is a crucial aspect of providing quality healthcare to all patients, regardless of their cultural, racial, or ethnic background (Guzman et al. 2021; Jongen, McCalman, and Bainbridge 2018).

In our increasingly diverse society, it is essential that medical practitioners are culturally competent to provide equitable and culturally sensitive care. A lack of cultural competence can lead to miscommunication, misunderstandings, and mistrust between patients and healthcare providers, which can negatively impact patient health outcomes and satisfaction (Aysola et al. 2018).

To become culturally competent, medical practitioners should engage in ongoing education and self-reflection to increase their understanding of the cultural beliefs, values, and practices of their patients. This includes learning about different health beliefs, attitudes toward healthcare, and communication styles, as well as understanding how cultural differences can affect health behaviors and decision-making (Jongen, McCalman, and Bainbridge 2018).

In addition, the medical practice should strive to create a culturally inclusive environment for patients. This could include providing interpreter services for patients who do not speak the same language as the healthcare provider, using culturally appropriate health education materials in a language that patients can understand, and being mindful of the physical environment, such as using artwork and decor that reflects the diversity of its patient population (Clifford et al. 2017; Stubbe 2020).

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Moreover, cultural competency should be the responsibility of not only individual healthcare providers, but also organizations and medical practices. Practice leaders can lead the cultural competency charge. This can be achieved by implementing cultural competency training programs for all employees (Fernet et al. 2013; McGregor et al. 2019) and regularly reviewing and updating policies and procedures to ensure cultural sensitivity and promote diversity and inclusion at all levels of the organization (Jie et al. 2022).

The medical practice can take steps to address concerns about and improve cultural competency in the practice (Mendoza et al. 2015). The American Hospital Association (2013) has outlined seven recommendations for improving cultural competency in healthcare organizations:

1. Collect race, ethnicity and language preference data and make sure this information is accessible to staff.
2. Identify and address disparities.
3. Provide culturally and linguistically competent care.
4. Develop culturally competent disease management programs.
5. Increase diversity and minority workforce pipelines.
6. Involve the community.
7. Make cultural competency a practice priority.

Cultural competency development for medical professionals must begin with their education, making it a part of the curriculum for physicians and other healthcare professionals (Krisberg 2017).

Gender Equity

Gender equity in the medical practice is a critical issue that has gained increasing attention in recent years. It refers to the creation of a culture in which individuals of all genders are treated fairly and equitably in healthcare settings, including equal access to care, opportunities, and outcomes. Achieving gender equity is essential not only for promoting social justice, but also for improving the quality of care and patient outcomes (Ruzycki et al. 2022).

The primary way to promote gender equity in medical practice is to address gender-based discrimination and harassment. Studies have shown that female healthcare providers are more likely to experience gender-based discrimination and harassment (Stasenko et al. 2020), which can have negative impacts on their mental health and job satisfaction and lead to lower retention rates. Addressing these issues requires creating a culture that values

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and respects the contributions of all healthcare providers, regardless of gender. This includes providing training and education to healthcare providers to recognize and address implicit biases and promoting diversity and inclusivity in the workplace.

Another important aspect of promoting gender equity in medical practice is ensuring that patients receive care that is responsive to their unique needs and preferences. This means avoiding gender-based assumptions and instead focusing on delivering patient-centered care. This approach recognizes that individuals of different genders may have different health needs and that care should be tailored to the individual rather than based on gender stereotypes (Malek et al. 2022; Stamarski and Son Hing 2015).

Creating policies and practices that support work–life balance is another essential strategy for promoting gender equity in medical practice. Healthcare providers, regardless of their gender, should have access to flexible work schedules, parental leave, and other resources that support their work–life balance. This not only promotes gender equity but also contributes to improved job satisfaction, mental health, and retention rates.

The AMA (2019) has created a set of nine principles for advancing gender equity in medicine that can be adapted for use in any medical practice. These principles state that the AMA:

1. declares it is opposed to any exploitation and discrimination in the workplace based on personal characteristics (i.e., gender);
2. affirms the concept of equal rights for all physicians and that the concept of equality of rights under the law shall not be denied or abridged by the US Government or by any state on account of gender;
3. endorses the principle of equal opportunity of employment and practice in the medical field;
4. affirms its commitment to the full involvement of women in leadership roles throughout the practice and encourages all components of the federation to vigorously continue their efforts to recruit women members into organized medicine;
5. acknowledges that mentorship and sponsorship are integral components of one's career advancement and encourages physicians to engage in such activities;
6. declares that compensation should be equitable and based on demonstrated competencies/expertise and not based on personal characteristics;
7. recognizes the importance of part-time work options, job sharing, flexible scheduling, re-entry, and contract negotiations as options for physicians to support work-life balance;
8. affirms that transparency in pay scale and promotion criteria is necessary to promote gender equity and conduct periodic reviews of compensation and promotion rates by gender and evaluate protocols for advancement to determine whether the criteria are discriminatory; and

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9. affirms that we encourage and advocate that medical schools, institutions and professional associations should provide training on leadership development, contract and salary negotiations and career advancement strategies that include an analysis of the influence of gender in these skill areas.

Pay equity is a critical component of promoting gender equity in medical practice. female healthcare providers continue to earn almost 25 percent less than their male counterparts, even after controlling for factors such as specialty, experience, and work hours (WHO 2022). Ensuring that all healthcare providers receive equal pay for equal work is essential to promoting gender equity and valuing the contributions of all healthcare providers (Gill, McNally, and Berman 2018; Stamarski and Son Hing 2015).

Reward and Recognition

An essential aspect of practice management is the reward and recognition of practice members. Although economic rewards are important, they are not the only way to demonstrate appreciation. Sometimes a simple "thank you" or another considerate gesture is an ideal acknowledgment.

The practice should design reward and recognition strategies that increase employee satisfaction and engagement, leading to improved performance. Many successful practices recognize birthdays and major events in the lives of practice members while respecting their privacy. Celebrating successes such as reaching important milestones or completing a difficult set of tasks can build morale for the team.

One strategy takes acknowledgment a step further by asking employees how *they* wish to be recognized. Some people do not enjoy or feel comfortable with public recognition; they prefer receiving accolades in a private setting. We all have preferences about what makes us feel special and appreciated, and the wise practice manager finds out what those preferences are for their staff (MGMA 2015; Sampson and Fried 2021).

Workforce Shortages

The COVID-19 pandemic spurred an economic trend dubbed the "Great Resignation" that saw employees resign from their jobs en masse, citing factors such as wage stagnation, job dissatisfaction, lack of benefits, and other concerns. This trend has had a significant impact on the American workforce, and particularly on healthcare organizations. Since 2020, healthcare organizations have been dealing with shortages of physicians, nurses, and other professionals (Wilensky 2022).

According to the Association of American Medical Colleges, the United States will face a shortage of up to 124,000 physicians by 2034, including 48,000 primary care physicians (AAMC 2021). In addition, the US Bureau of Labor Statistics projects that more

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than 275,000 additional nurses will be needed between 2020 and 2030. Employment opportunities for nurses are expected to grow at 9 percent, faster than all other occupations, through 2026 (AAMC 2021). Shortages of nurses are a concern not just in the United States, but also worldwide (Bees 2023).

A survey conducted by the Aon Company (2021) produced some startling results that raise serious concerns about the overall healthcare workforce. Although the survey targeted hospital organizations, the competitive environment of healthcare personnel recruiting makes these data applicable to medical practices as well.

Health system employers identified the following as their top workforce concerns:

- Employee burnout and workforce resilience (77 percent)
- Employee work–life balance (76 percent)
- Financial stress for employees (75 percent)
- Benefits to support diversity, equity, and inclusion (73 percent)

To address these concerns, hospitals and health systems are offering new and enhanced benefits to employees to improve employee satisfaction and bolster retention. Employers cited the following benefits (Aon 2021):

- Tuition reimbursement programs (94 percent)
- Flexible work options (69 percent)
- Cash-out vacation policies (66 percent)
- Adoption benefits (45 percent)
- Gender-affirming healthcare coverage (36 percent)
- On-site daycare (33 percent)
- Student loan repayment plans (32 percent)
- Back-up childcare (31 percent)

A number of efforts are being made to improve shortages identified in the Aon survey. They include the following:

- Investing in technology to reduce the time needed to complete tasks and optimize clinicians' workflows by eliminating low-value activities
- Rethinking where care is delivered, which might lead to greater use of telemedicine

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- Redesigning work teams by bringing in more clinical workers and allowing all employees to operate at the top of their license
- Injecting flexibility into jobs:
  - Schedule flexibility
  - Job sharing
  - More part-time workers

Burnout

According to a recent study, 63 percent of physicians reported experiencing symptoms of burnout in 2021, a dramatic spike from 38 percent in 2020 (Shanafelt et al. 2022). Thus, healthcare worker burnout is a major issue facing every medical practice (Shanafelt and Kuriakose 2023).

Burnout is often attributable to a mismatch between a person's natural tendencies and the tasks they are assigned to perform. This is a systemic and endemic problem in the workplace (Moss 2019). Researcher Christina Maslach of the University of California, Berkeley, has identified six factors that contribute to burnout among employees (Maslach and Leiter 2015):

- Unsustainable workload
- Perceived lack of control
- Insufficient rewards for effort
- Lack of a supportive community
- Lack of fairness
- Mismatched values and skills

Before organizations can address burnout, they must first create the necessary conditions to discuss it. Burnout often carries a stigma of individual weakness—a person "can't hack it"—which makes employees reluctant to be honest about it. Practice leaders must work to create a sense of psychological safety and a culture in which people feel secure enough to share their problems without fear of punishment (Bodenheimer and Sinsky 2014; Maslach, Jackson, and Leiter 1996; Shanafelt et al. 2019; Southwick and Southwick 2018).

One reason among many for burnout is the dramatic change that is taking place in the medical practice, including the Affordable Care Act reforms, the introduction of new payment mechanisms, increasingly sophisticated and complex electronic records

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systems, pressures to do more work (see more patients, process more claims, etc.) with fewer resources, and the increasing scrutiny on healthcare delivery by the media and regulators. Medical practice is a shifting landscape, and some practitioners are clearly feeling exhausted. The COVID-19 pandemic exacerbated this trend (Buchbinder et al. 2022; Lasalvia et al. 2021).

Provider Health

The health of medical practice members should be of great concern to practice managers and leaders. Without a healthy workforce, the practice cannot provide the best possible care to its patients or operate at an optimal level. The COVID-19 pandemic brought increased attention to this concern (Bhardwaj 2022).

Concern for staff members' well-being begins with the hiring process, which is the first step in the employment management function. It continues with the establishment of effective lines of communication and monitoring of practice activities to increase the likelihood that health issues will be identified early on.

One tool that can help providers and others in the practice avoid burnout is the abbreviated Maslach Burnout Inventory (Maslach and Goldberg 1998; Maslach, Jackson, and Leiter 1996). This straightforward, self-administered assessment is illustrated in exhibit 8.11.

The person taking the self-assessment simply checks the appropriate column in response to each question. The columns are totaled, and the proper weighting is applied. The interpretation of the assessment is shown in exhibit 8.12. If the practice uses the burnout inventory, it should also consider how it will respond to staff who score high for burnout. Practice leaders can take a number of steps to help decrease burnout.

Simple Ways to Decrease Burnout

The practice can suggest a few simple approaches to help staff deal with burnout. Uncertainty is a major source of stress, especially in times of rapid change. The first recommendation is to avoid overthinking the situation—you cannot predict the future, no matter how smart you are.

Second, practice leaders can suggest that staff members "own what you can own." This phrase means that staff pay attention to their own work and the issues that are in their control. People often worry so much about things beyond their control that they lose sight of what they can affect or influence.

Third, practice leaders can encourage staff to take positive action to move an aspect of their life forward. This suggestion may involve creating new routines that eliminate triggers for stress; learning new stress-relieving techniques, such as mindfulness meditation; or taking a moment to relax and practice gratitude for the positive aspects of life.

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Exhibit 8.11
Maslach Burnout Inventory (Abbreviated)

How often:	Not at All	Rarely	Sometimes	Often	Very Often
Do you feel run down and drained of physical or emotional energy?					
Do you find that you are prone to negative thinking about your job?					
Do you find that you are harder and less sympathetic with people than perhaps they deserve?					
Do you find yourself getting easily irritated by small problems, or by your co-workers and team?					
Do you feel misunderstood or unappreciated by your co-workers?					
Do you feel that you have no one to talk to?					
Do you feel that you are achieving less than you should?					
Do you feel under an unpleasant level of pressure to succeed?					
Do you feel that you are not getting what you want out of your job?					
Do you feel that you are in the wrong organization or the wrong profession?					
Are you becoming frustrated with parts of your job?					
Do you feel that organizational politics or bureaucracy frustrate your ability to do a good job?					

(continued on next page)

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Exhibit 8.11
Maslach Burnout Inventory (Abbreviated) *(continued)*

How often:	Not at All	Rarely	Sometimes	Often	Very Often
Do you feel that there is more work to do than you practically have the ability to do?					
Do you feel that you do not have time to do many of the things that are important to doing a good quality job?					
Do you find that you do not have time to plan as much as you would like to?					
Sub Totals: Count number of checks in each column, and multiply total by appointed number	×1	×2	×3	×4	×5
Column Totals					
Add column totals to get Total Burnout Score_____					

Source: Maslach, Jackson, and Leiter (1996).

Exhibit 8.12
Interpretations of the Maslach Burnout Inventory

Score	Comment
15–18	Little sign of burnout.
19–32	Little risk of burnout, unless some factors are severe.
33–49	Caution: You may be at risk of burnout, especially if several of your items were rated high.
50–59	You may be at severe risk for burnout. Do something about this soon.
60–75	You may be at very severe risk for burnout. Do something about this now!

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A final bit of advice is to engage in healthful behaviors. This means getting enough sleep, eating correctly, and getting regular exercise. Studies have shown that a brisk walk can be as effective in combating mild depression as antidepressants (Mead et al. 2009).

For the medical practice leader, the most important asset is people. Hire and manage with care, and encourage healthful behaviors to ensure an optimum workforce to take care of patients.

The Future Workforce

According to a Pew Research Center study, two-thirds of Americans believe that in the next 50 years, robots will be performing much of the work humans do now (Smith 2016). A key implication of this prediction is that the future medical practice workforce should learn to excel at those activities that robots and computers cannot. Fundamental among these activities is human interaction.

Shifting demographic patterns and technological change brought by economic globalization will have a significant impact on the future workforce. A study released by the RAND Corporation (2004) found four significant implications related to these trends:

Employees will work in more decentralized, specialized firms, and employer-employee relationships will become less standardized and more individualized.

Slower labor force growth will encourage employers to adopt approaches to facilitate greater labor force participation among women, the elderly, and people with disabilities.

Greater emphasis will be placed on retraining and lifelong learning as the US workforce tries to stay competitive in the global marketplace and respond to technological changes.

Future productivity growth will support rising wages and may affect the wage distribution; the tie between employment and access to fringe benefits will be weakened.

All these factors will have an impact on the future of the medical practice. In terms of telemedicine, telehealth, and other trends toward electronic intermediaries between the practice and the patient, many employees can now work from home performing billing and other office work. It is only a matter of time before clinicians routinely conduct remote patient care. With the overall US workforce aging—the average age of physicians in the United States is 53.2 (Newitt 2022)—the healthcare delivery system is likely headed toward shortages in several medical specialties as well as other highly trained workforce members in the medical field.

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Discussion Questions

1. List the steps in the hiring process, and explain why each is important.
2. Write a brief outline of the employee onboarding process.
3. What are some nonphysician practitioner categories often found in the medical practice?
4. What are the components of a SMART goal?
5. Often physicians are not assessed on a regular basis. Do you think regular assessments should be required for physicians? Why or why not?
6. What steps can the practice manager take to address professional burnout?
7. In what ways did the COVID-19 pandemic exacerbate the problem of burnout among healthcare providers?
8. What can practice leaders do to improve diversity, equity, and inclusion in the workforce?

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CHAPTER 9

LEADING, MANAGING, AND GOVERNING WITHIN ORGANIZATIONAL DYNAMICS

Treat people as if they were what they ought to be, and you help them become what they are capable of being.

—Johann Wolfgang von Goethe

Learning Objectives

- Appreciate the types of leaders and leadership styles.
- Understand the difference between leadership and management.
- Describe the dyad management model.
- Appreciate the importance of managing disruptive behavior in the medical practice.

Introduction

Many definitions and descriptions of management and leadership have been offered by numerous observers. In essence, and for purposes of this discussion, leadership is the process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task or goal. This definition is captured by a quote attributed to former first lady Rosalynn Carter: "A leader takes people where they want to go. A great leader takes people where they don't necessarily want to go, but ought to be."

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Leaders also need to know themselves, and they need to know their followers. They are good teachers and help their followers understand the nature of the medical practice's mission. Good leaders explain the "why," not simply the "what." People need to know why they are carrying out activities to be fully invested in them. They often become so busy focusing on the what that they forget the why. Staff cannot demonstrate passion for what they do not understand or support, and they cannot support something they do not understand. If practice members do not support and understand the mission and respect the values it espouses, the practice cannot prosper. Leading a divided practice is difficult, if not impossible. To avoid such divisions, leaders must focus attention on aligning practice members with the mission and vision of the practice (Wagner 2003).

Much of leadership and management (later in the chapter, we consider the differences between leadership and management) relates to how the leader interacts with their team: Does the leader delegate or collaborate? Does the leader direct, dictate, or facilitate? Readers may consider this question as they proceed through the chapter, with the understanding that people do not need to limit their approach to leadership to their natural tendencies. All styles have their place, and each can be learned. Think about the surgeon in the operating room. We expect and desire that surgeon to be direct and dictate what needs to be done. The operating suite is no place for a lengthy discussion or collaboration on solutions if the patient is facing an imminent threat. Now place the same surgeon in a practice meeting that requires a collaborative solution and the input of all stakeholders to arrive at an optimal outcome for the patient. In this case, a direct or dictating style of leadership is counterproductive. This scenario represents one of the challenges for medical practice managers and leaders: the need to help people develop the flexibility to use the proper leadership style in the appropriate situation. This skill comes with awareness and with practice, and the modern medical practice is charged with developing leaders who appropriately use multiple leadership and management styles in the operation of the practice.

The Basics and Theories of Leadership

While a detailed description of each theory is beyond the scope of this text, some of the most prominent leadership theories are listed here for review. Many of the following focus on the behaviors and characteristics of leadership to explain performance and organizational impact (Nohrina and Khurna 2010; Northouse 2015):

- Great man theory
- Role theory
- Participative leadership
- Lewin's leadership styles

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- Situational leadership
- Hersey and Blanchard's situational leadership
- Trait theory
- Behavioral theory
- Contingency theory

Regardless of the theory one subscribes to in terms of leadership styles and development, leadership and its proper application are essential elements of a viable medical practice. As in many types of organizations, medical practice leadership is in increasingly short supply (Hay Group 2006).

Exhibit 9.1 summarizes an important aspect of the most prominent theories of leadership: the need to serve stakeholders or to be more self-centered in perspective.

In general, we see two kinds of leaders: those who are focused on power, economic rewards, and authority (will to power) and those who are oriented toward service (will to serve). Those possessing the will to serve tend to be more transformational, and those with the will to power tend to work in organizations that are transactional in nature. **Transformational leadership** is intended to create change in individuals and in the medical practice. The goal of transformational leadership is to encourage valuable and positive change in the followers and promote growth in both followers and leaders. Transactional leadership, sometimes called managerial leadership, focuses on supervising followers and managing group performance; leaders employing this style of leadership promote compliance through rewards and punishments. Transformational leadership is the style most needed in today's practice environment.

Transformational leadership
A form of leadership intended to create change in individuals and the medical practice by encouraging valuable and positive change in followers and promoting growth in both followers and leaders.

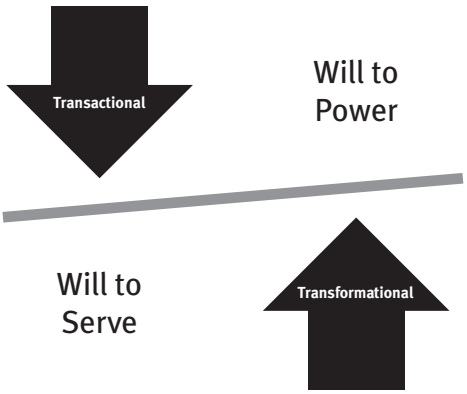


EXHIBIT 9.1
Transactional Power Versus Transformational Power

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In his book *Good to Great*, Jim Collins (2001) proposes five levels of leadership, which are applicable to the medical practice:

Level 1: The highly capable person is able to give to the practice thorough knowledge, skills, and other good work habits.

Level 2: The contributing team member is a person who begins to use her talents to give to the practice.

Level 3: The competent manager understands basic organization of employees and resources and how to use them to meet objectives and goals of the practice.

Level 4: The effective leader stimulates a higher performance standard for the practice.

Level 5: A leader builds enduring greatness through humility and professional will.

Level 5 leaders find their success through the success of others and of the practice; they do not put their own ambitions first. The level 5 leader is rare, so it is true that other levels of leadership can be successful; however, leaders can, and should, all strive to become level 5 leaders (Collins 2001).

In the medical practice, trust is essential, and that trust must be built between the practice manager, its leaders, and the other stakeholders in the organization. Perhaps because of this need for trust, the concept of tribal leadership, developed by David Logan, John King, and Halee Fischer-Wright (2008) in their book *Trial Leadership: Leveraging Natural Groups to Build a Thriving Organization*, may also be applicable to the medical practice. This theory identifies five stages of tribal culture and demonstrates how managers and leaders can help the entire "tribe" move from one stage to the next. These stages are as follows:

Stage 1: Members of the tribe are hostile to one another and to the company or practice. According to the authors, this stage is not commonly seen in organizations.

Stage 2: This stage features the presence of tribal members who are negative, antagonistic, passive, sarcastic, and resistant to the positive initiatives of the company. The authors believe this stage is commonly seen, and from the author's experience, it is where one often finds medical practices in times of change.

Stage 3: This stage is even more common in workplace tribes and can be characterized by "knowledge hoarders" who seek to outwit competitors on an individual level rather than view the whole as a tribe. Tribal members stuck in this stage are lone warriors who primarily care about being seen as the best individual in the tribe. This stage, too, describes many medical practices.

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Stage 4: The tribe begins to move from "I'm great" to "we're great." Members become motivated to work together for the benefit of the whole organization. Leaders, managers, and practice members must work very hard to achieve this stage, as the practice of medicine is heavily focused on the individual, and the natural inclination is for the individual to see the success of the practice primarily as a result of their own personal efforts.

Stage 5: Innovative members use their talents to make an impact on the community for the greater good. According to the authors, less than 2 percent of workplace tribal cultures achieve this stage. Although the medical practice must always focus on its primary mission—the excellent care of individual patients—the emerging interest in and reimbursement for population health management and community health require the medical practice culture to look outward to the communities it serves.

Leadership Versus Management

Another debate that often occurs regarding leadership and management is whether leadership and management are different. In his article "Are Leadership and Management Different? A Review," Ali Algahtani (2014) provides an overview of the scholarship on leadership and management. People often use the terms *leadership* and *management* synonymously; however, generally speaking, leadership and management are not the same concept. The two disciplines share a number of overlapping skill sets, especially when applied in smaller medical practices. That said, leaders tend to be externally focused on the environment, with particular concern for the mission and the future direction of the practice. They are typically visionary, seeking the ideal levels of operational performance, service, and concern for the well-being of their stakeholders. Managers focus on internal issues and the tasks that must be accomplished to achieve an effective degree of operation. They translate goals into action. Successful organizations find a collaborative balance between leaders and managers and the role each brings to the practice (Algahtani 2014).

Some medical practices may be structured in a way that requires practice managers or clinical leaders to serve both leader and manager functions, but even in these situations, understanding the difference is helpful so that the leader-manager is capable of assuming the appropriate role for the situation at the correct time and in the context of the individual practice.

In a discussion of leadership versus management, defining what each term means is important. Leaders need followers, and therefore the number-one responsibility of a leader is to paint a compelling vision of the future. Otherwise, why would anyone follow? Exhibit 9.2 provides a list of leadership characteristics compiled from a review of the leading researchers in the field.

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Exhibit 9.2
Leadership Characteristics

Is adaptable to situations	Is alert to social environments
Is ambitious and achievement oriented	Is assertive
Is cooperative	Is decisive
Is dependable	Focuses on people
Has a high activity level	Is persistent
Has self-confidence and takes risks	Tolerates stress
Is willing to assume responsibility	Is trustworthy and inspires trust
Is inspiring	Is influential
Has followers	Uses influence
Empowers others	Does the right thing
Originates	Challenges the status quo
Has a long-range perspective	Has eyes on the horizon
Is transformational	Follows personal values
Asks what and why	Is innovative
Sets strategies and vision	Facilitates decision-making

The simplest definition of *management* is that it is the process of controlling things and people. As is often said of healthcare in general, practice management is both an art and a science. This notion can be seen in exhibit 9.3, which lists management characteristics as described by several leading researchers (see, e.g., Bernard Bass, Warren Bennis, Stephen Covey, James Kotterman, and others listed in the Additional Reading section at the end of this chapter).

The Dyad Leadership Model in Practice Management

Modern medical practices often employ the dyad leadership model for running the practice, as they can have difficulty finding a staff member with the expertise needed to run both the clinical and nonclinical parts of the practice. In the typical arrangement, a nonphysician executive is in charge of administrative issues, and a physician or another clinician is responsible for the clinical aspects of the practice. Numerous duties require cooperation where clinical and nonclinical functions overlap; the interdependent nature of administrative and clinical functions is particularly evident in patient care.

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Exhibit 9.3
Management Characteristics

Has subordinates	Establishes agendas
Is the classic "good soldier"	Asks how and when
Relies on control	Accepts responsibility
Focuses on doing things right	Has a short-range perspective
Holds formal authority	Is a problem solver
Is tough-minded	Budgets
Is analytical	Plans
Maintains stasis	Focuses on systems
Uses power cautiously	Delegates cautiously
Minimizes risk	Is a stabilizing force
Administers	Has eyes on the end result
Takes a structured approach	Is deliberate
Coaches	Manages
Decides on action plan	Monitors activities against plans
Sets timetables	Organizes staff

In a study conducted by the Medical Group Management Association (MGMA), 77 percent of respondents indicated they used a physician–administrator dyad leadership model, and most of those dyads were said to meet at least monthly (Comstock 2019).

Developing a Dyad Management Structure

The first step in developing a dyad leadership model in a medical practice is to establish an agreement or pact, sometimes called a covenant, between the clinical and nonclinical leaders. This agreement answers the questions shown in exhibit 9.4 and records the answers in the form of a covenant framework.

As physician practices continue to consolidate and become part of larger integrated organizations, the need for practice physicians to increase their management and executive skill set is becoming more urgent. However, in the past, practices often erred in assuming that medical expertise alone confers on physicians the ability to manage and lead. Management and leadership are unique skills, separate from clinical skills. Good doctors do not necessarily make good leaders or managers. The assumption that a good clinician can

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Exhibit 9.4
Development Template for a Dyad Leadership Agreement

1. What does dyad leadership look like to us?
2. What is your perception of why we need dyad leadership in our practice?
3. What is our agreement vision for group/practice? Is it different from what is currently recorded?
4. What are our goals for group/practice?
5. Are our goals for the group/practice aligned?
6. What schedule will we commit to for routinely discussing issues affecting the operations of the practice? Options are daily/weekly/monthly/quarterly and as needed.
7. How do we convey our commitment to and support of the dyad leadership process to the members of the practice?
8. How will we handle conflicts between nonclinical staff and clinical staff?
9. How will we resolve our differences of opinion about issues?
10. What decisions do we make together? Examples:
    a. Strategic decisions
    b. Recruiting
    c. Onboarding
    d. Mentoring
    e. Team development
11. What decisions do we make independently?
    a. Daily operating decisions
    b. Giving feedback
12. How will we develop agendas?
13. Who will chair and coordinate meetings?
14. Other items that may be unique to the practice.

Signed: _____
Date: _____

Signed: _____
Date: _____

be a good leader or manager often leads to the fulfillment of the so-called Peter Principle, whereby individuals are selected for promotion to their highest level of incompetence on the basis of their current role, only to fail (Asghar 2014). Therefore, physician managers and leaders must receive the education and training needed to fulfill the responsibilities of their new roles (Zismer and Bruggemann 2010; Zismer and Person 2008).

Training may be developed internally; sought through external resources, such as the American College of Healthcare Executives (ACHE), MGMA, American Association for Physician Leadership, American Medical Group Practice Association, American Academy of Family Physicians, American College of Surgeons, American College of Physicians,

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American College of Cardiology, or any of the numerous other professional organizations; or by using a hybrid internal–external training approach.

Medical practices, especially large ones, can offer significant training themselves. Regardless of which approach the practice chooses, management and leadership training should focus on the following:

- What must leaders know as professionals in this practice?
- What must individual leaders know to be able to achieve personal, practice, and professional goals?
- What do leaders require of the practice to enable them to succeed in their new role?

In addition, training specific to dyad-managed practices should cover the following areas:

- Leadership and the mission, vision, and strategy

  Objective: Clarity about the co-leadership role.

  — Discuss models of dyad leadership.

  — Discuss and describe the evolution of dyad leadership in the practice (purpose, history, roles, etc.).

  — Create and share a dyad leadership agreement.

- Communication styles

  Objective: Understand your communication style and how you can best work with your co-leader.

  — Take the Management by Strengths, DiSC, or Predictive Index profile (see chapter 8) and discuss the results to understand yourself and others.

- Quality and process improvement

  Objective: Attain a firm grasp of quality and process improvement. Understand the practice's initiatives and the tools and resources available to support them.

  — Plan

  — Do

  — Study

  — Act

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- Recruiting, onboarding, mentoring, and developing

  Objective: Understand how best to recruit, onboard, and develop staff.

  — Discuss the role of physicians in recruiting other physicians.

  — Discuss the purpose and benefits of staff development.

  — Review tools to help recruit, mentor, and develop staff.

- Managing disruption

  Objective: Learn best practices for managing disruption.

  — Understand your style of conflict management using the Thomas-Kilmann Instrument or a similar tool.

  — Review best practices for managing disruption.

- Business decision-making

  Objective: Understand how to run the practice together while balancing service and profitability.

  — Explore the decision-making process.

  — Identify and understand the key performance metrics.

The importance of training in these areas is highlighted in the sections that follow.

Leadership: Mission, Vision, and Values

Peter Drucker once said that, above all else, "leaders must have followers," and to ensure followership, those leaders must establish the mission, vision, and values of the organization. In fact, one defining characteristic of the trusted leader is the ability to paint a compelling vision of the future.

The mission statement provides the reason the organization exists and the intentions of the organization. The vision statement outlines the aspirations of the organization and what the future state of the organization will be when it is successful. The values statement indicates what the organization believes and how it will behave, often declaring how its members will behave as individuals and how they will interact with their stakeholders.

The statements should be clear, concise, and simple. They should leave little room for interpretation, and they should be known and acknowledged by all members of the organization. If anyone in the practice cannot articulate the why, what, and how represented by the mission, vision, and values statements, they need further training. If additional training and support fail to improve the individual's understanding of the statements, they may not

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be a good fit for the practice. These statements are the framework for all decision-making; they should guide all actions of the practice and should have a profound impact on how it operates, what services it provides, and how the work will be performed.

Developing the mission, vision, and values statements is an important function of the governing body because it sets the tone and standard for all that the organization does. Of course, the first question is whether the practice should develop a mission, vision, and values statement at all, considering this activity is more than a simple exercise.

For example, a practice's mission, vision, and values statements might be articulated as follows:

Mission: To be the leading provider of medical services in the community.

Vision: We will be the community's preferred provider of high-quality care at an affordable price.

Values: We provide service to all members of our community regardless of their ability to pay.

Many variations are possible, but they should always be true to the practice's intentions: what the practice hopes to achieve and how it expects to achieve those aims. These documents must be carefully developed and taken seriously, or they should not be developed at all.

Many practices expand the concept of the values statement by providing a list of their values and the commitment they have made to the patients of their practice. Some examples of values that might be articulated and posted or given to the patient as a commitment to them include the following:

- Putting patients' needs first
- Treating patients and their families with courtesy, respect, and compassion
- Communicating information clearly and thoroughly
- Always using integrity and sound judgment in all decisions
- Working collaboratively with the patients, staff, and other colleagues (patient-centered care)
- Using evidence-based care and best business practices
- Having a high-performing culture that attracts and keeps the most talented individuals
- Delivering the highest-caliber care possible

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- Earning trust through action, service, and behavior
- Maintaining an atmosphere of quality improvement and continuous learning

Professionalism

In today's modern practice environment, professionalism and ethics are paramount considerations. What is professionalism?

- It is a vocation or calling and implies service to others.
- It involves knowledge of a distinctive base of expertise that is kept up to date.
- It is determined by a set of standards and examination of achievement in those standards.
- It involves developing a special relationship with those the individual serves.
- It involves the adoption and demonstration of particular ethical principles.

All these points apply to professionalism in medical practice. In addition, professionals exhibit the following attributes:

- Honesty
- Altruism
- Service
- Commitment
- Communication
- Commitment to excellence
- Accountability
- Lifelong learning

Dr. Gerald Hickson and his colleagues at Vanderbilt University have worked for many years to perfect a system for improving professionalism in medical practice. As shown in exhibit 9.5, professionalism and ethical behavior require the right balance of intentional system design and professional accountability. To put it another way, the practice must develop rules of acceptable conduct and make its expectations for that conduct known while relying on the individual professionals to be accountable to ensure that the highest standards of professionalism and ethical behavior are maintained.

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Hickson and colleagues (2007) have also found a strong connection between negative behaviors by members of the practice and malpractice litigation. By progressively addressing negative disruptive behaviors, in almost all cases behaviors are decreased, with a resulting significant decrease in malpractice claims and other negative consequences in the practice. Exhibit 9.6 shows the spectrum of disruptive behaviors seen in medical practices, ranging from the most common to the most severe.

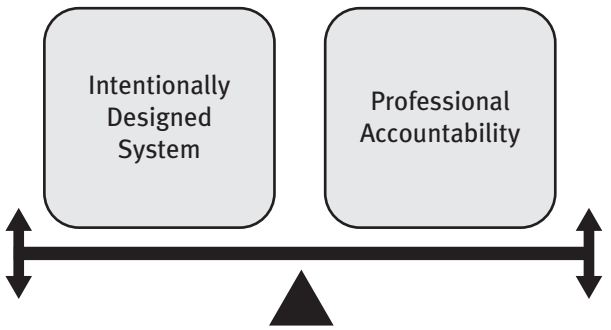


EXHIBIT 9.5
Balancing System Design and Professionalism

Source: Hickson et al. (2007). Used with permission of Gerald Hickson.

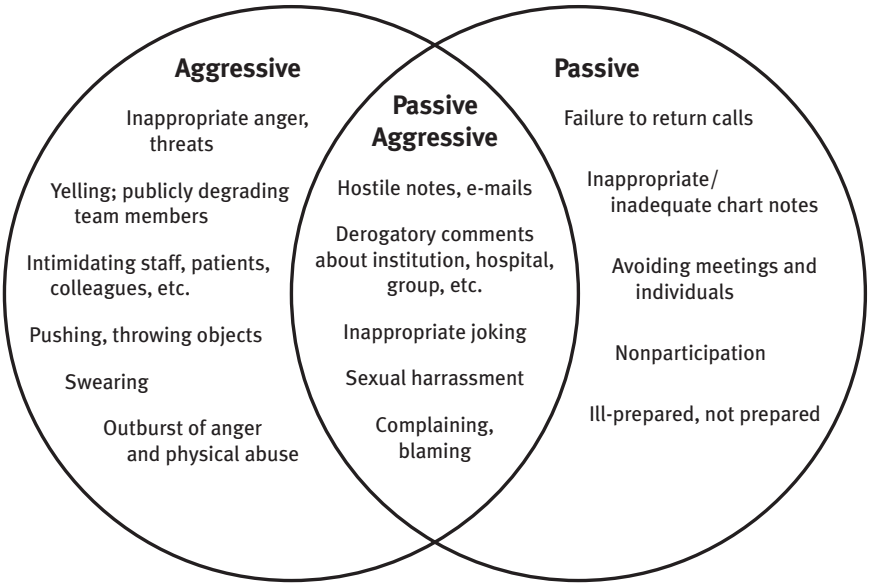


EXHIBIT 9.6
Spectrum of Disruptive Behaviors

Source: Swiggart et al. (2009).

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Professionalism and Substance Abuse

Medical practice leaders need to be in tune with potential causes of disruptive behavior that hinder professionalism; in some cases, that behavior may be due to substance abuse or mental illness. In these situations, many barriers can impede early diagnosis and intervention with professionals, including the following:

- The "conspiracy of silence"
- Denial on the part of family, friends, colleagues, and even patients

These barriers are the products of a lack of education concerning the true nature of addiction as a primary biogenetic and psychosocial disease. Tenacious denial is the common feature of physicians with substance use disorders, as knowledge of the effects of drugs and alcohol create the delusion that special insight provides immunity from addiction. Physicians who experience addiction usually cannot see themselves as sick and often do not accept dependency as a disease. Furthermore, family members and colleagues contribute to the denial by covering up or making excuses for the physician and do not demand that they seek help.

However, signs and symptoms emerge in professional life, family life, and social life. The practice must have clear policies and procedures in place to help colleagues in this area. In most states, the medical boards operate a medical professionals' health program, which is designed to provide assistance to the individual while protecting him or her from actions that would permanently affect the ability to practice. The Federation of State Physician Health Programs (2023) offers additional information regarding these programs. Practice managers and leaders should be familiar with these resources should they need to use them.

Leadership Styles

A brief discussion of leadership styles may be useful for leaders of medical practices. Weber (1958) categorized leadership styles as bureaucratic, charismatic, or traditional. More important for our purposes, Burns (1978) and Bass (1999) added to this perspective by proposing the categories of transactional and transformational leadership. The transformational style is preferred over transactional leadership. Exhibit 9.7 lists some key attributes of the transformational leader and shows how they differ from transactional leadership (Bass 1990; Bass and Avolio 1994).

Burns (1978) noted the attachment of morality to leadership, proposing that moral leaders are sensitive to the needs, beliefs, and values of their followers, whereas immoral leaders disregard the beliefs of followers. Furthermore, he suggested that amoral leaders rule followers through coercion and fear, an approach that is generally discounted as ineffective.

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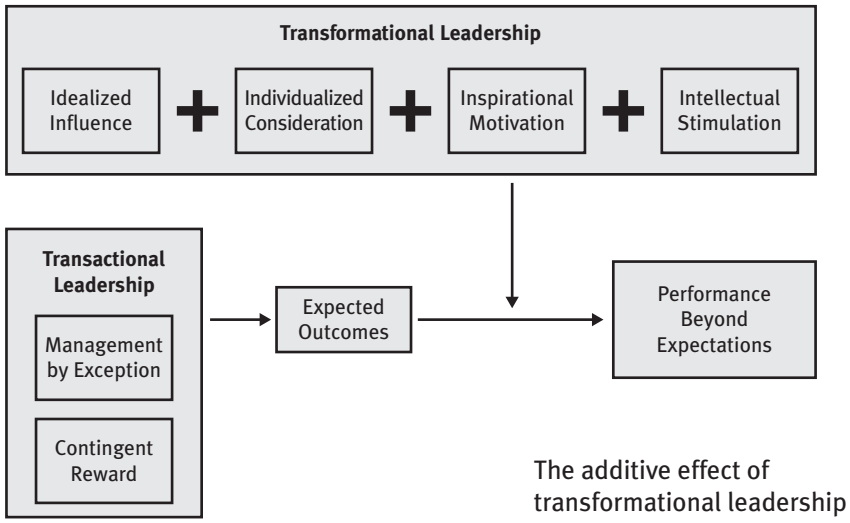


Exhibit 9.7
Results of Transformational Leadership

Source: Adapted from Bass and Avolio (1994).

Rather, transformational leaders use internal, or intrinsic, motivating factors to influence, and they provide individualized consideration, inspirational motivation, and intellectual stimulation to achieve outcomes. Transactional leaders use external, or extrinsic, motivating factors and manage by exception and contingency.

Transformational leaders and managers are able to articulate their attitudes and demonstrate their behaviors in a way that is inspiring and motivating to their followers. This cycle is illustrated in exhibit 9.8.

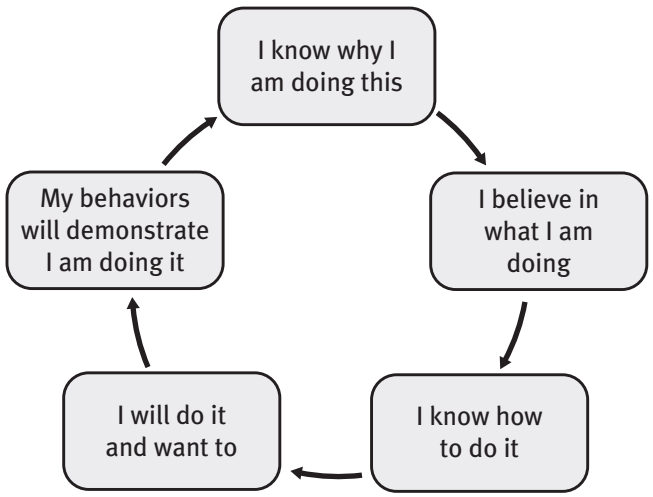


Exhibit 9.8
Transformational Leadership and Management

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Organizational Conscientiousness

Most people recognize conscientiousness as the personality trait of being careful and vigilant. In an organizational sense, we add the notions of efficiency, orderliness, and the general desire to complete the task at hand well. In a sense, organizational conscientiousness is a summation of the traits of all the individuals in the organization. When considered in those terms, care and vigilance in operations require leadership to set the tone and demonstrate conscientiousness as an organizational value.

Organizational conscientiousness has often been expressed as, "First do the right thing; then do it right." Practice managers and leaders must take this simple phrase to heart as they examine the operations of the practice and its interactions with all its stakeholders in the spirit of the conscientious relationship. Organizational conscientiousness is fundamental to having an organization that demonstrates integrity (Becker 1998).

Emotional Intelligence

Most successful leaders have a high degree of emotional intelligence (EQ). As discussed in chapter 8, Daniel Goleman's (1995) book *Emotional Intelligence: Why It Can Matter More than IQ* brought EQ to the forefront of theories in the management world. His insights and application are based on the work of Mayer and Salovey (1997), who define EQ as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth."

EQ involves the recognition and regulation of ourselves and our relationships. According to Goleman (1995), EQ traits can be described as follows:

- Self-awareness
  - emotional self-awareness
  - accurate self-assessment
  - self-confidence
- Social awareness
  - empathy
  - organizational awareness
  - service orientation
- Self-management
  - self-control

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- transparency
- adaptability
- achievement driven
- initiative

◆ Relationship management

- inspirational leadership
- developing others
- influence
- change catalyst
- conflict management
- building bonds
- teamwork and collaboration

A 2009 literature review found an important connection between a highly successful nursing practice and EQ, a relationship that also applies to other providers in the medical practice (Smith, Profetto-McGrath, and Cummings 2009).

One exercise for developing EQ in the organization is to ask the team, or an individual team member, to close their eyes and think about a person on whom they really rely and whom they trust—someone they consider the ideal team member. Then ask them to think about someone who would be in the opposite camp: difficult, untrustworthy, and hard to get along with—someone they generally dread dealing with. Now ask, at the most basic level, what is the difference between these two people? The answer is probably their EQ. One lacks self-awareness when he disregards his effect on the people he interacts with. He is not service oriented, he lacks self-control, and he responds poorly when changes are necessary. The individual lacking EQ cares little about developing others and seems to enjoy conflict instead of building bonds and collaboration.

Although task-oriented competencies are important in determining success, the critical factor is EQ. The practice manager should strive to help practice members develop this intelligence.

Generational Issues in the Medical Practice

Generational issues are emerging in the medical practice as never before. Every day in the United States, 10,000 people turn 65, and by 2050, the number of people over age 65 is

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expected to double, accounting for 20 percent of the US population (AARP International 2023). This shift toward an aging population has a profound impact on the medical practice in a number of ways. As people age, in general they need more medical care, and practices need to be adept at caring for older people.

Although some physicians and practices specialize in the care of older individuals, most seniors receive care from practices that see a wide range of ages. Consider that older individuals may need more time to navigate the practice and to explain their medical needs. In addition, those medical needs often involve treatment for chronic diseases such as heart disease, diabetes, or arthritis. According to the National Council on Aging (2023), nearly 95 percent of older adults have at least one chronic condition, and 80 percent have two or more. These factors present a resource challenge for the practice in determining ways to provide care to a population that is getting increasingly older while the practice is simultaneously experiencing restrictions on reimbursement.

Our workforce is also aging, and individuals are choosing to delay retirement, for many reasons. As stated in chapter 1, for the first time in history, five generations are present in the workplace, a situation that offers both opportunities and challenges for medical practices. The two largest groups are baby boomers and the millennials. On the one hand, boomers bring experience and a long-term perspective, place work as a high priority, and are comfortable with hierarchy. On the other hand, millennials generally enjoy collaborative working relationships, technology, and a desire for greater work–life balance (Smola and Sutton 2002).

Furthermore, millennials tend to be less oriented toward planning than members of the baby boom generation. Consider a little story about going to dinner. A group of boomers decide to go to dinner. They will plan for this event and even make a reservation at the restaurant. They go to a place they are familiar with. They may recall their favorite dish and look forward to having it again. In addition, they have planned what they will do after dinner. The millennial group going to dinner decides to get something to eat and texts that information among themselves and with other friends. "Getting something to eat. Join us?" They look online for a place to get the type of food they are in the mood for; the location and number of people to dine are not determined ahead of dinner. They drive by the first choice and notice that the parking lot is too full, so they tweet that they are proceeding to the next possible location. In the meantime, more and more of their friends join in and plan to meet with them. Finally, they come to a place where they all are satisfied and they get something to eat.

The point is that the goal of getting something to eat was accomplished by both parties; the difference is the process. Which is right? Which is wrong? The answer, of course, is neither, but recognizing the approach that each group took in getting the goal accomplished is helpful. Planning has its place, and so do flexibility and spontaneity. Extending the example to the medical practice, leaders and managers must be open to incorporating new ideas and processes into the workplace by taking into account the aptitudes and values each generational group brings.

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Furthermore, they must work to effectively develop teams that take advantage of the many positive attributes of each group. Open dialogue regarding their differences in which they are acknowledged is key because each brings its own set of strengths and weaknesses. The more practice leaders recognize the value of each group, the more effectively they can manage the practice. For example, a practice converting its records system to an electronic health record is wise to consider the points of view of all the generations working in the practice. Younger team members may have a solid grasp on the use of new technologies, and older workers see the limitations of the technology that balance the team's deliberations.

Diversity and Inclusion Issues for Leadership

We have seen how age and generation can have a great impact on the operations of the medical practice. Age is only one aspect of diversity. Next, we explore other dimensions of diversity and how we can effectively manage them to improve the practice.

The process starts by recognizing that "We don't know what we don't know." Practice managers and leaders are charged with helping practice members become aware of the value of diversity and inclusion.

The following steps are involved in improving diversity and inclusion in the medical practice (Holvino, Bernardo, and Merrill-Sands 2004):

1. Establish clear expectations in the policies and the values expressed by the practice that it supports a diverse and inclusive environment. These expectations should apply to employment issues, educational activities, patient care activities, and community outreach efforts.
2. Shape attitudes and policies toward diversity and inclusion through training and education, recruiting, onboarding, and development. When possible, practices should strive to be representative of the communities they serve.
3. Measure and evaluate the practice's current status regarding diversity. Have conversations with community leaders and activists to gain feedback on their perspective of the practice in terms of diversity and inclusion issues.
4. Take corrective action when necessary, such as making operational changes, addressing performance issues, and curbing any activity that will affect the practice and its stakeholders. Such action might be taken by members of the practice toward each other and the patients or by patients toward practice members.

Following are two illustrative stories.

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One day, Mr. Jones calls the practice administrator of Happy Practice USA. He complains that he did not want to be cared for by a particular doctor because of his race. Does the administrator accommodate the patient and assure him that he will not have to see that physician? The ideal conversation might go like this: "Mr. Jones, I assure you that all the physicians in our practice are highly qualified and that they work as a team. In our efforts to make sure you receive timely and appropriate care, we would be irresponsible if we guaranteed you would not see a particular physician in the practice. In fact, you may need to see this physician when you are in the most difficult of circumstances, as in the emergency department when our physicians are on call. For these reasons, it is not possible, nor is it our policy, to have patients change caregivers solely on the basis of what you have described. We would certainly like to have you as our patient, and we want you to feel comfortable and confident in the care that we provide. Mr. Jones, please consider what I've said, and if you feel you cannot have the confidence in all our caregivers to provide the care you need, it might be best for you to find another practice to care for you. Of course, we will give you adequate time to make your decision and find a different practitioner if that is your desire. We will do everything we can to make that a smooth transition." This dialogue should be followed up with a letter indicating the essence of the conversation to prevent complications and the potential for an allegation of abandonment. (All states and medical societies have standards on appropriate ways to dismiss a patient. Failure to follow these rules can result in an abandonment complaint, which can lead to sanctions from the state medical examining board.)

On another day, a supervisor frantically enters the administrator's office and says, "I have a serious employment question that I need to discuss with you." The administrator listens carefully to the story. "I just had a person with a disability apply for a position in my department. I don't know why human resources would send me an applicant like this. What should I do?" An appropriate discussion could proceed as follows: "Is the person qualified to do the job? Is she the best applicant to perform the job that we have posted to fill?" The supervisor replies, "Yes on both counts." The administrator asks, "Can we make reasonable accommodations so that she can do the work?" The supervisor replies, "It will not take a lot to do that." The administrator replies, "Then you should hire her."

These conversations are also great opportunities to coach supervisors on diversity and inclusion practices. They should be treated as a learning opportunity rather than in a punitive manner. The supervisor's contact with people with disabilities may be limited, and their reaction in this situation may have arisen from a lack of understanding rather than malicious intent. Remember, "We don't know what we don't know"—effective practice managers and leaders help develop people in all respects, including diversity and inclusion.

They should never miss an opportunity to provide leadership on diversity and inclusion and, when necessary, coach on the values that the practice espouses. Although in some cases, legal issues may be involved, such as discrimination on the basis of age, race,

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ethnicity, gender, national origin, and disability (EEOC 2023), in all cases, hiring for inclusion is the right thing to do.

One final thought on diversity and inclusion speaks to an issue that is not often included in this category, and that is the way individuals think. Practices must allow some diversity of thought; failing to do so means they will miss opportunities to include innovative ideas in practice operations. Encourage members of the practice to provide ideas and speak up with innovative thoughts. Diversity and inclusion can be a strength for any medical practice.

Giving and Receiving Feedback

Among the most difficult tasks of managers and leaders is providing feedback to subordinates; receiving feedback is fraught with difficulty as well. Successful practices master the art of giving and receiving feedback to all members of the practice.

Why is feedback so difficult? Many people have had poor experiences in receiving and giving feedback. Because it is a skill that requires time and attention to develop, much of the feedback people have received in the past may have been given in an inappropriate way, resulting in negative feelings about feedback in general—even about accepting positive feedback.

Effective medical practices see giving and receiving feedback as essential skills, and they seek to cultivate those skills in everyone in the practice. To begin, establish a clear understanding that the practice engages in providing feedback to one another and that feedback is a gift (Stone and Heen 2014). If managers and leaders are unaware of behaviors, performance issues, or other opportunities for improvement, they cannot address those issues. Likewise, failing to provide reinforcement for constructive behaviors and excellent performance is a missed opportunity to institutionalize the behaviors the practice seeks and the performance it desires. We all want recognition for what we do, and much of the time, that can be in the form of constructive feedback.

When giving feedback, always consider what your intentions are and what you hope to achieve from the session. When receiving feedback, consider what the intentions of the person giving feedback might be, and listen to that feedback carefully.

Guidance on Providing Positive Feedback

Following are tips for providing positive feedback:

- Express your positive intent, and describe the behavior your feedback is intended to address.
  - Describe the behavior in a specific manner.

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  - — Avoid generalizing about the behavior. Generalizations are always less effective than concrete, specific comments, and they are less meaningful to the recipient.
  - — Be sincere in your presentation.
  - — Do not mix criticism with praise.
- Describe the impact of the behavior in terms of the goals of the practice or department.
- Always thank the recipient for their contributions to the practice or department.

Guidance on Providing Negative Feedback

Consider the following when giving negative feedback:

- Giving feedback when it is not positive but constructive in nature is often challenging. Prepare for the feedback session carefully by determining the desired outcome. Make the feedback useful and actionable.
- Be sure you have observed the behavior directly. Do not rely solely on hearsay before conducting the feedback session.
- Always choose a private location and allow adequate time for the session.
- Always show that your intent is positive. Be objective with your wording and approach, and discuss what you have observed, not what others have told you.
- Describe the behavior and its impact on the work group, department, or practice. Focus on the behavior, not the person, and express your desire for a mutual solution. Avoid being accusatory or creating a confrontational environment.
- Encourage the person to respond, and listen carefully to that response. The dialogue is an opportunity to demonstrate active listening by summarizing the speaker's key points and clarifying any statements that may be unclear.
- Ask the person for solutions, and, if appropriate, suggest a specific change.
- Summarize the discussion.
- Agree on next steps. Express encouragement, show confidence in the person, and be sure that the steps are clear and that a follow-up date is established.

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Guidance on Receiving Negative but Constructive Feedback

None of us is perfect, and in a high-performing practice, every member should expect to receive constructive or negative feedback on occasion. In fact, an absence of the occasional constructive feedback is a sign that the organization is not committed to being open and honest with its members.

Following are some considerations for receiving negative or constructive feedback:

- Think about how you react to feedback of a constructive nature. Is your manner defensive? Do you quickly apologize, or do you react in a positive way by seeking to learn and understand what the feedback is meant to tell you?
- When possible, think about your responses before the session takes place. Often, people have a sense that a constructive feedback session may occur, especially in a practice that is open and honest about feedback.
- Listen actively and calmly. Be sure you understand the points being made and acknowledge the concerns.
- Discuss a mutually appropriate solution, and develop an action plan.
- Always reflect on any feedback session to learn not only about the specific behaviors and situations discussed but also how to improve your management and leadership skills in the future. Self-reflection is a powerful tool for growth.

Guidance on Receiving Positive Feedback

Who doesn't like positive feedback? Surprisingly, many people feel uneasy when receiving positive feedback, and such feedback sessions can become awkward. To avoid difficult positive feedback situations, first, understand that the feedback is a reflection not only of your performance but also of what the practice values. More than a simple expression of appreciation, it is an indication of activities and behaviors you should continue to do to support the practice. Next, seek advice on learning to be gracious and appreciative of positive feedback.

Learning to give and receive feedback of all types is essential for the high-performing medical practice. A culture that respects and engages in consistent, fair, and well-executed feedback does not develop by accident; it requires the organization to establish an environment conducive to open and honest feedback (Patterson et al. 2011; Stone and Heen 2014).

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Governance and Organizational Dynamics

Organizational dynamics
The script for the organization's human capital, or the ways in which individuals and processes interact in the company.

The governance and **organizational dynamics** of a medical practice cover a wide range of issues, many of which have been discussed in other chapters of this text. For our purposes in this discussion, we cover the key aspects of governance and the manner in which these functions influence organizational culture.

The governance of a medical practice involves numerous areas of responsibility, including the following:

- *The appropriate legal structure for the organization*. This function includes considering and balancing the framework of governing bodies with attention to these elements:
  - The size of the board and committees. Board size varies greatly among organizations on the basis of the size and diversity of the practice, as an inverse relationship exists between the size of a governing body and its ability to act, so careful consideration must be given to size. In addition, think about the time frame in which action is needed. Often, operational and strategic issues may be separated, with consideration for the need to act more quickly on operational issues and more deliberatively on strategic ones.
  - How members are chosen. If members are elected, how? By majority? Or by a specified percentage greater than 50 percent (called a supermajority)? By appointment? In some cases, individuals are simply appointed by the practice. For example, the board may appoint members of a quality management committee. By rotation? In this structure, an individual may rotate into a position of authority on the basis of an agreed-on schedule or process.
  - Extent of authority held by members. Most practices, like most other types of organizations, place limits on the authority of any one person or group of individuals. Authority typically is limited in terms of the amount of money that can be spent, what contracts and obligations can be entered into by the group or individual, and so on. It also includes changes in the bylaws or voting rules, legal changes to the practices, or merger and acquisition activity. The practice should avoid an overly complicated oversight process, for example by giving responsibility to a committee or an individual only to require their decisions to be reviewed or revised at one or more additional levels of governance.
  - What committees to establish. Committees, such as an executive committee, a compensation committee, a quality management

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committee, a safety committee, a medical records committee, or a research committee, may be ad hoc or permanent committees. An ad hoc committee is formed for a particular purpose or task and disbanded once that task is completed. An example is an ad hoc committee seated for the selection and purchase of a medical records system (a permanent IT committee may also be in place, which would have responsibility for system oversight going forward).

- *Record-keeping of the activities of the governing bodies*. Accurate minutes and other documents related to meetings must be kept and distributed as appropriate. One area related to record-keeping is ensuring proper follow-up occurs on action items. Failures to establish and execute follow-up procedures result in forgotten items resurfacing as even more problematic or urgent concerns.
- *If incorporated, development and maintenance of the corporate mission, vision, and values statements and the organization's culture*. This area of responsibility should be visited yearly or when appropriate depending on current events. For example, a practice merger or acquisition should prompt this action.
- *Development and maintenance of the practice's strategic plan and its implementation*. This area should also be visited yearly or when appropriate depending on current events—for example, dealing with burnout, staff shortages, and medical practice costs.
- *Setting compensation standards for physicians, other professionals, and staff*. Compensation standards may be established with the help of the compensation committee, survey data from MGMA, and benchmark information from other physician practice organizations. A compensation consultant may be needed in some cases, as when the issues are particularly problematic, are complex, or involve legal questions.
- *Approving expectations or programs for the practice*. Expanding the scope or geographic reach of the practice represents major commitments that require careful planning and support, so thorough vetting by the governance structure is essential.
- *Facilitating and encouraging physician leaders to become knowledgeable, participative stakeholders*. The practice's management and leadership must devote time and resources to educating the members of the governing bodies. Retreats devoted to reflection and renewal of the practice are opportunities for education on good governance.

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- *Ensuring the quality of the medical care provided by the practice*. The governing bodies of the practice must ensure that the practice delivers high-quality care. This responsibility is accomplished through the following steps:
  - Establish quality goals, and educate everyone in the practice on those goals.
  - Develop and monitor appropriate quality benchmarks using data analysis and surveys, such as patient satisfaction surveys.
  - Take action when quality measures are not met by engaging in quality improvement projects.
  - Take action when serious or recurring complaints arise.
  - Take all patient and provider complaints seriously.
  - Review individual quality data with all providers, and establish an action plan for improvement when necessary. Schedule regular follow-up sessions for reviewing progress.
- *Participating in advocacy endeavors at local, state, and federal levels*. Efforts include the following:
  - Membership in local civic organizations, such as the Rotary Club. These organizations are often unaware of or uninformed on important healthcare issues.
  - Participation in local business organizations, such as the area's business roundtable or others that may be unique to the community.
  - Engaging with state legislators. Be available to help and inform when issues affecting patients and practices arise.
  - Engaging with members of the US Congress and their committees.
  - Involvement in professional organizations, such as ACHE, MGMA, and other specialty-specific organizations.

On a regular basis, the governance process should be reviewed and the governing body educated on its responsibilities and obligations to the practice and to the patients it serves. Unlike many other organizations, the governing body of a medical practice may have a limited knowledge of business and governance. Because the governing body is often composed of the practice's physicians and providers, this makeup presents challenges whereby decisions can be influenced by personal preference or interest. An important step is to remind members of the governing body that they should act in the best interest of the practice.

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Governance and organizational dynamics have taken on additional importance for all organizations in recent years. The modern medical practice is no exception, and in a sense, it is in greater need of focused attention to this topic as healthcare comes under ever-increasing scrutiny. Rising costs, medical errors and other quality concerns, potential conflicts of interest, and spiraling technology costs all lead to the need for much more attention to governance and organizational dynamics than has been required in the past.

In a practical sense, however, governance and organizational dynamics can be summed up as *a need to change and to protect the new status quo in a cycle of continuous improvement*. Effective governance and the management of organizational dynamics are essential to a successful medical practice. Governance and organizational dynamics must have a higher priority for practices in the future. Above all else, leaders must develop their followers in the standards and expectations of governance to facilitate the flow of new ideas in the changing healthcare environment.

Conducting Meetings

An important skill for practice leaders is the ability to conduct an effective meeting. This task may sound simple, but in reality, it requires a great deal of thought, preparation, and execution to have meetings that produce results.

An effective meeting is divided into three sets of activities:

1. Before the meeting:
    a. Determine the structure of and purpose for the meeting. Ask yourself whether the meeting is necessary. Can the issue be handled in some other way?
    b. Carefully consider who is being asked to attend the meeting and why they are there.
    c. Determine the objective and desired outcome of the meeting.
    d. Compile and distribute (well in advance) any prior communication, documents, or other information that will help the attendees prepare for the meeting.
    e. Develop and distribute an agenda that includes the items to be discussed, the time allotted for discussion, and the actions needed. Meeting items that may be listed as "information only" often can be handled by memo or other means of communication.
    f. Establish rules for the conduct of the meeting.

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2. Conducting the meeting:
    a. Always start the meeting on time.
    b. Remind participants to limit discussion to the items on the agenda to make sure all are addressed.
    c. Go over the rules of the meeting and ask whether any participants have changes or objections. Obtain agreement that the meeting will be conducted under these rules.
    d. Any important items that arise that are not on the agenda may be placed in the "parking lot," a device for recording and deferring critical but unplanned issues for later consideration.
    e. Manage the discussion. Medical practice meetings involve people who often have strong personalities and opinions. The facilitator of the meeting should manage the discussion in a way that provides for all attendees to have input, such as allowing each attendee to comment in turn in "round robin" style.
    f. Limit discussion to the time allotted for each agenda item. Time management of meetings is important to maintain interest and credibility for future participation.
    g. Stay on topic. The facilitator can bring the discussion back to the topic at hand should the conversation drift to other areas.
    h. Follow-up actions should be decided by the group. The group should also decide who is responsible for completing each action.
    i. Minutes of the meeting should be recorded, including required follow-up activities.
    j. Set follow-up meetings if appropriate. In medical groups, one strategy is to establish standing meeting times that account for provider schedules. That said, beware of standing meetings that have no purpose. Meetings can always be canceled, and should be when no useful purpose is apparent.
    k. Always end the meeting on time.
3. After the meeting:
    a. Thank the participants for their attendance and contribution.

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b. Prepare and distribute minutes.

c. Develop an action list of the items requiring follow-up. Distribute those action items to the responsible parties, and establish a time frame for their action.

d. Inform stakeholders of important actions that resulted from the meeting, including follow-up activities and timelines.

e. Monitor progress on follow-up activity.

Assessing Leadership Success

The professional practice manager goes through career stages from competent to expert, from studious to intuitive. When others ask for their opinion and not for the facts, it might be said that they "have arrived." Opinions are based on the integration of knowledge and facts, of skills and insights—and above all, trust. The trust that we speak of is authentic trust, not naive trust. Authentic trust is built over time and, unlike naive trust, does not require that we always be right, only that we always be worthy of the trust we have been given.

Authentic trust is a close ally of integrity. Think about someone you really trust. What makes that person trustworthy? Are they infallible? Probably not, but that individual has done all they could to make appropriate decisions given the information available. This person recognizes when they are wrong and takes actions to correct mistakes (Wagner 2003).

When a person's judgment is valued and their professionalism is respected, that individual has achieved success.

Managing and Leading in an Increasingly Complex Internal and External Environment

To sum up the issues discussed in this chapter, managing and governing complex medical practice organizations is a significant challenge because of the complexity of the healthcare industry, rapidly evolving structures and technologies, the constantly changing regulatory environment, and the high stakes involved in patient care (Begun and Thygeson 2015). All this becomes increasingly intricate as organizations grow larger and as services become more integrated, merged, coproduced, and specialized. Effective management and governance of these practices are critical to ensure that patients receive high-quality care and the organization remains financially sustainable (Heaslip 2015; Heywood, Hillar, and Turnbull 2010; Richardson 2005).

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Patients are the reason that healthcare organizations exist, and their satisfaction should be the top priority. A patient-centric approach ensures that patients receive the best possible care and that their experience is positive (Barry and Edgman-Levitan 2012; *NEJM Catalyst* 2017).

Developing and implementing effective governance structures is critical. A robust governance structure should include clear roles and responsibilities, policies and procedures, and mechanisms for oversight and accountability. Good governance ensures that the practice is managed efficiently and effectively and that risks are identified and managed appropriately (Kovner and Lemak 2015).

Fostering a culture of collaboration and communication is essential for the success of the medical practice. Effective communication strategies ensure that all stakeholders are informed and engaged. Collaboration across departments, teams, and individuals is essential to achieving the organization's objectives (Aysola et al. 2018).

Compliance with regulatory requirements is critical in the healthcare industry. Medical practice organizations are subject to a complex regulatory environment. It is the job of the practice manager to ensure compliance with all relevant regulations, including healthcare laws and regulations and patient privacy laws (CMS 2022; HHS 2023).

Continuous improvement is also important. The practice should foster and actively seek feedback from stakeholders to identify areas for improvement in patient care, processes, and quality management (Kaplan et al. 2015). Effective human resources policies should also be developed and implemented to attract, retain, and develop the best talent in the healthcare industry (AHA 2022).

Investment in technology and innovation is essential to ensure that medical practice organizations remain competitive and adapt to changing market conditions. Building strong relationships with key stakeholders, including patients, employees, suppliers, and regulators, is also critical.

Financial sustainability is essential for medical practice organizations. Effective financial management strategies and risk management plans should be developed and implemented to ensure that the organization remains financially viable (White and Griffith 2019). Crisis management plans should also be developed and implemented to minimize the impact of risks such as natural disasters, cyberattacks, and pandemics on patient care and organizational performance (Good 2020).

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Discussion Questions

1. In your own words, explain the difference between leaders who have a will to power and those who have a will to serve.
2. Compare the transformational and transactional leadership styles.
3. What is meant by a dyad leadership system? What is important about a co-leader pact, agreement, or covenant?
4. What are some leadership characteristics?
5. What are some management characteristics, and how do they differ from those of leadership?
6. Describe some examples of disruptive behavior and discuss their implications.
7. What choices does the practice manager have in dealing with disruptive behavior?

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CHAPTER 10

QUALITY MANAGEMENT IN THE PHYSICIAN PRACTICE

Quality and reliability are system properties.

—W. Edwards Deming

Learning Objectives

- Articulate the nature of performance management.
- Describe the approaches to performance improvement.
- Appreciate the impact of variation on performance.
- Discuss the components of the Triple Aim and the Quadruple Aim.
- Describe process improvement and some of its tools.

Introduction

One of the most important issues to address in the medical practice is the quality and safety of the care provided to patients. The Institute of Medicine (IOM), a prestigious branch of the National Institutes of Health, stated in its landmark report *Crossing the Quality Chasm: A New Health System for the 21st Century*, "In its current form, habits, and environment, American health care is incapable of providing the public with the quality health care it expects and deserves" (IOM 2001, 43).

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Another historic IOM report, *To Err Is Human: Building a Safer Health System* (2000), indicated that a shocking number of people—an estimated 44,000 to 98,000 per year—are harmed by the healthcare system. A more recent study found that this number has increased since publication of the 2000 IOM report despite substantial efforts to improve. Medical errors have now become the third leading cause of death in the United States (Makary and Daniel 2016).

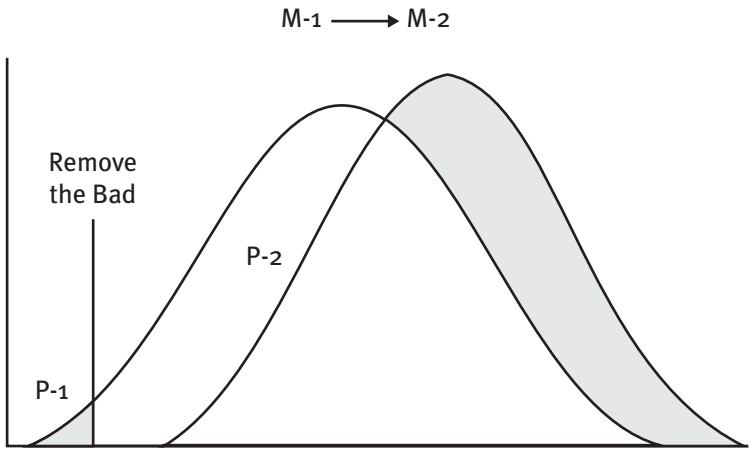
The complexity of medical services and the inconsistency with which these services are delivered, not to mention the fragmented nature of the system, have led to a number of quality concerns (Mosadeghrad 2014), including a lack of systematic approaches to care delivery and quality improvement. Efforts to improve quality in the medical profession have a long tradition of focusing on individual performance rather than system performance.

Exhibit 10.1 illustrates the potential flaw in this thinking. The bell-shaped curve, P-1, represents the overall performance of any given system. Curve P-2 illustrates an improved system of performance in which the median performance shifts from M-1 to M-2. If an organization seeks to improve by only focusing on the low performers, it experiences only a small improvement, shown by the shaded area to the left. By improving the system as a whole, a much larger improvement is seen, as demonstrated by the larger shaded area to the right. Although focusing on removing bad behavior and poor performance is necessary, it will not produce the optimum level of improvement being sought in the US healthcare system.

Safety Is Improving

More recent studies suggest that safety is improving. For example, a 2022 study showed that during the decade before the onset of the COVID-19 pandemic, rates of in-hospital

Exhibit 10.1
Performance Improvement



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adverse events resulting in patient harm had declined significantly in the United States (Eldridge et al. 2022). The researchers reviewed the records of nearly 245,000 patients in more than 3,100 US hospitals between 2010 to 2019 and considered 21 types of adverse events, including the following:

- Adverse medication events, such as those associated with the use of insulin or anticoagulants
- Infections such as central line–associated bloodstream infections
- Catheter-associated urinary tract infections
- Postprocedure events such as those associated with hip and knee replacement surgeries
- Postoperative cardiac events

The study found significant decreases in in-hospital adverse events for heart attack, heart failure, pneumonia, and major surgical procedures, indicating that, before COVID at least, hospital care was getting safer. "America's doctors, nurses, and allied health workers dedicate their professional lives to serving patients and keeping them safe," Robert Otto Valdez, director of the Agency for Healthcare Research and Quality, commented on the study. "These . . . results indicate that we know how to improve patient safety by working together and that we can sustain those results over time. The pandemic has undoubtedly put those successes at risk, but this study should provide motivation for healthcare officials to rebuild and rededicate ourselves to a patient and provider safety doctrine" (AHRQ 2022).

Quality and Safety Improvement

Much of the work on quality improvement has focused on healthcare institutions such as hospitals; however, the findings of the IOM research apply to medical practice as well. A common denominator in all healthcare environments is the healthcare provider.

In a landmark study published by the RAND Corporation in 2006, quality was found to be lacking in the services offered by medical practices. Overall, adults received about half the recommended care; further, that finding did not vary significantly across metropolitan areas. In addition, wide variability in the quality of care received was noted across communities for the same disease state. All social and demographic groups were affected. One conclusion of the study is that the lack of care received by patients was attributable to the absence of investment in systemwide information technology, performance tracking, and incentives for improving care (RAND 2006).

For the most part, practices still are not reimbursed for services by third-party payers on the basis of the quality of care delivered, but on volume (Reynolds 2022). Although no

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practice wishes to provide care in a way that produces poor quality, the focus on volume and the lack of focus on outcomes create distortions in the way leaders manage their practices. In fact, this reimbursement methodology is a major contributing factor to misaligned incentives (Miller 2009; Network for Regional Health Improvement 2008). These ideas are not new, but progress toward moving to a value-based system from a volume-based one has been slow, painstaking, and resisted by stakeholders. As discussed in the "Change Management" section of chapter 8, healthcare is plagued by high resistance to change.

The Commonwealth Fund reported some striking differences in the quality of healthcare in the United States compared with other Western countries. The United States often ranks last in many important categories, The report identified four features that distinguish top-performing countries from the United States: "(1) they provide for universal coverage and remove cost barriers; (2) they invest in primary care systems to ensure that high-value services are equitably available in all communities to all people; (3) they reduce administrative burdens that divert time, efforts, and spending from health improvement efforts; and (4) they invest in social services, especially for children and working-age adults." The COVID-19 pandemic further exposed the weaknesses in our system of care (Schneider et al. 2017; Schneider et al. 2021). In *Crossing the Quality Chasm*, the IOM (2001) recommends that private and public purchasers, healthcare organizations, clinicians, and patients work together to redesign healthcare processes in accordance with the following rules:

1. *Care should be based on continuous healing relationships*. Patients should receive care whenever they need it and in many forms, not just through face-to-face visits. The health care system should be responsive at all times (24 hours a day, every day), and access to care should be provided over the Internet, by telephone, and by other means in addition to face-to-face visits.
2. *Care should be customized based on the patient's needs and values*. The system of care should be designed to meet the most common needs but should have the flexibility to respond to an individual patient's choices and preferences.
3. *The patient should be in control*. Patients should be given necessary information and the opportunity to exercise as much control as they choose over health care decisions that affect them. The health system should be able to accommodate differences in patient preferences and should encourage shared decision making.
4. *The system should encourage shared knowledge and the free flow of information*. Patients should have unfettered access to their own medical information and to clinical information. Clinicians and patients should communicate effectively and share information.
5. *Decision making should be evidence-based*. Patients should receive care based on the best available scientific knowledge. Care should not vary illogically from clinician to clinician or from place to place.

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6. *Safety should be a property of the system*. Patients should be safe from injury caused by the care system. Reducing risk and ensuring safety will require systems that help prevent and mitigate errors.
7. *The system should be transparent*. The health care system should make information available to patients and their families that allows them to make informed decisions when selecting a health plan, a hospital, or a clinical practice or when choosing among alternative treatments. Patients should be informed of the system's performance on safety, evidence-based practice, and patient satisfaction.
8. *The system should anticipate patients' needs*. The health system should be proactive in anticipating a patient's needs, rather than simply reacting to events.
9. *The system should constantly strive to decrease waste*. The health system should not waste resources or patients' time.
10. *The system should encourage cooperation among clinicians*. Clinicians and institutions should actively collaborate and communicate with each other to ensure that patients receive appropriate care.

The prevailing mindset and attitude about quality and safety should be in alignment with the sentiment expressed in this quote from the Greek play *Antigone*, by Sophocles: "All men make mistakes, but a good man yields when he knows his course is wrong, and repairs the evil. The only crime is pride." Errors of commission, errors of omission, errors of communication, errors of context, and diagnostic errors are all to blame. Furthermore, the human desire to be perfect contributes to the problem, not the solution (James 2013). The illusion of perfection is an unrealistic point of view that is held by the public. In the face of all these issues and variables surrounding patient safety and quality, leaders and managers of medical practices can no longer cling to the status quo.

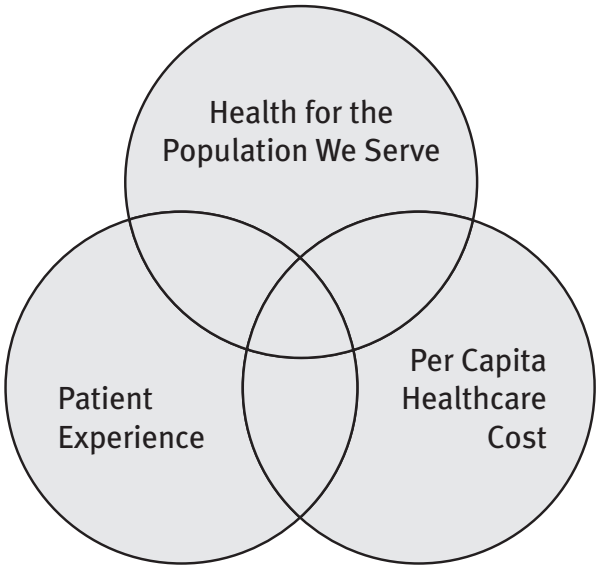
The Triple Aim

Medical practices are at the forefront of population health management, as they are often the first contact patients have with the healthcare system. The Triple Aim is a cornerstone population health concept developed by Dr. Donald M. Berwick, the founder, president emeritus, and senior fellow of the Institute for Healthcare Improvement (IHI). In a sense, this approach has become national health policy, influencing the way that many healthcare providers think about healthcare. As shown in exhibit 10.2, the Triple Aim is focused on three intersecting elements:

- *Per capita cost*. This component of the Triple Aim intends to lower the cost of care per person (not cost in aggregate, because as population increases, costs should naturally rise).

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Exhibit 10.2
The IHI Triple Aim



Source: Adapted from IHI (2017).

- *Patient experience*. The Triple Aim is concerned with patient experience because it has a huge impact on whether patients adhere to the treatment prescribed by providers. Evidence shows that patients who are satisfied with the care they receive and consider the care experience to be "good" are more likely to comply with the recommendations of their providers than are those who perceive their experience as unsatisfactory. Another benefit of consistently positive patient experiences is that they provide for an overall pleasant environment in the practice (Manary et al. 2013).
- *Better health for the population as well as the individual*. Considering the care of individual patients is no longer sufficient; to improve patient care, medical practices must take a broad look at the communities and populations they serve and develop strategies to improve the overall health of those groups.

Naturally, medical practices are focused on individuals and individual care. They want to achieve the best outcome for each patient. However, attending to the health of the entire population is important because small segments of that population use enormous amounts of healthcare resources, and society is asking the medical practice to take a substantial role in addressing this critical issue.

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The Quadruple Aim

The Triple Aim has been widely adopted as a framework for optimizing health system performance. The Quadruple Aim adds a fourth goal to this framework: improving the work life of healthcare providers, including clinicians and staff (Arnetz et al. 2011; Arnetz et al. 2020; Bodenheimer and Sinsky 2014). Physicians and other healthcare providers report alarming levels of burnout. Burnout is associated with lower patient satisfaction, reduced health outcomes, and increased costs and therefore jeopardizes the Triple Aim.

Arnetz and colleagues (2020) conducted a pilot study in a primary care practice setting to test an intervention aimed at addressing the goals of the Quadruple Aim while improving productivity. The researchers collected 46 team surveys and 156 patient surveys for 467 visits. The intervention focused on revising patient flow to allow preplanning of work tasks (e.g., tests and procedures), scribing, and optimizing the skills utilization of all team members. Daily team "huddles" and between-visit check-ins were incorporated to plan, communicate, and assign responsibilities. All appointments were scheduled for 20 minutes. One additional acute visit was allotted each hour. Lab draws and vaccinations were completed as part of the intake process by a medical assistant or registered nurse, who also completed all records and administrative duties immediately before, during, or after the visits. The physician was able to focus on the patient encounter with no computer-related tasks.

The study found that the intervention team performed better on all Quadruple Aims and productivity measures. The intervention group offered 48 percent more patient slots than the average reference team. Certainly a larger-scale study over a longer time period is needed to confirm these findings and examine the feasibility and cost-effectiveness of such an intervention, but these results suggest that process changes could help improve both the Quadruple Aims and productivity (Arnetz et al. 2020).

Quality Improvement Processes

Over the years, the terminology related to quality improvement has shifted from *quality improvement* (QI) to *total quality management* to *process improvement*, *Lean*, and *Six Sigma*, and now to *Lean Six Sigma.* All these concepts have their basis in the work of W. Edwards Deming and other pioneers in the field. Deming often spoke about the nature of the process and outcomes, teaching about process, the involvement of the individuals doing the work, and how important it was to the outcome. To demonstrate this lesson, he used a tool called the "red bead experiment" (Deming Institute 2023).

In the red bead experiment, participants work on a mock production line. They are given specific instructions on how to carry out their work. They are not allowed to make any adjustments to the process or to the inputs or in any way influence how the result is produced. They are simply required to follow the exact instructions of their supervisor and "work hard."

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The objective is to make white beads, not red beads. Some participants are given paddles containing small holes to accommodate the beads. They dip the paddle in a container full of red and white beads, shake off the excess, and take the paddle to an inspector, who counts the number of white beads the producer has made. Importantly, the inspector's role adds no value to the process. The process is repeated, and frustration mounts as the participants realize that achieving the best outcome (producing all white beads) is impossible because the input of red and white beads into the paddle is random.

This simple but extremely effective experiential activity demonstrates that the process is fundamental to the outcome of any activity. For example, overreliance on incentives to deliver performance is misguided; instead, practices must rely on providers' internal motivation to do the right thing while having an environment and processes in place that create trust and allow employees to flourish. No one ever comes to work on any given day intending to do a poor job. When medical practices rely only on incentives to motivate members, they may accomplish their metrics, but as research has shown, they do not necessarily see improvement (Heidenreich et al. 2016). Metrics often are set too low to ensure success, and any failures to meet the metrics are easily explained. Practices must help all staff members evolve in terms of process improvement to contribute to and produce the outcomes desired by engaging teammates' greatest asset—their mind. In this section, we discuss a variety of tools for process improvement. All these tools should be used with discretion and judgment and with a skill base that develops over time.

Variation and QI

Another important issue in quality and safety are the standards established for the work performed. Medical practices are now expected to create standard work processes that allow activities to be completed in the best way each time to reduce variation. Consider a practice that sees many patients each day. Several of those patients may have similar attributes: the same diagnosis, the same gender, the same age, and so on. Why does one patient leave the practice pleased and praising their experience and another leave upset and threatening to never return? They saw the same provider, they may even have been in the same corridor, and they were seen in adjacent and presumably similar rooms. How could their experiences be so different? The answer is variation. Variation is the enemy of quality and standard processes. In the absence of standards, tremendous variation emerges in all activities, producing a wide range of experiences and outcomes.

For decades, researchers, policymakers, and healthcare leaders alike have expressed concern about variation in clinical practice. However, the complexity of patient care leads to an important question: What variation is warranted and what is not, and what would be considered normal variation in a process may be unwarranted when it cannot be explained by patient characteristics or clear preferences for treatment, since clinical uncertainty is a source of variation (Atsma, Elwyn, and Westert 2020; Wennberg 2002; Westert et al. 2018).

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Other reasons for variation in clinical practice include (Diaz et al. 2008; Sutherland and Levesque 2020):

- agency and motivation,
- evidence and judgment,
- personal and organizational capacity, and
- beliefs.

Certainly, most agree that science should guide clinical decision-making (Mercuri and Gafni 2018).

Harrison and colleagues (2020) have demonstrated that providing feedback is an important way to reduce unwarranted variation. Clinical pathways have also shown great promise. Clinical pathways are tools used to guide evidence-based healthcare by translating clinical practice guidelines into clinical care processes. These structured, multidisciplinary care plans have the following characteristics (Lawal et al. 2016; Rotter et al. 2017; Rotter et al. 2019):

- They incorporate guidelines and evidence into practice structures.
- They outline the steps for treatment.
- They standardize care for specific clinical issues related to a particular procedure or episode of healthcare in a specific population.

To illustrate this point further, teams can conduct the "draw a pig" exercise, which is related to visual cues and carefully crafted instructions, known as "standard work." Participants are asked to perform four sequential stages in this exercise:

Stage 1: Each participant is given a sheet of paper with nine equal squares on it. They are asked to draw a pig. The participants are given two minutes to complete the activity. The facilitator collects all the papers, and the group views the outcomes. The results vary tremendously in the appearance of the pig (the outcome). Each person has applied their creativity in producing the pig, which is limited by their expertise in drawing. Significantly, many participants tend not to finish the exercise in the time allowed.

Stage 2: Each participant is given a sheet of paper with nine equal squares on it, as in the first stage. The difference this time is that the facilitator also provides a carefully written set of instructions on how to draw the pig.

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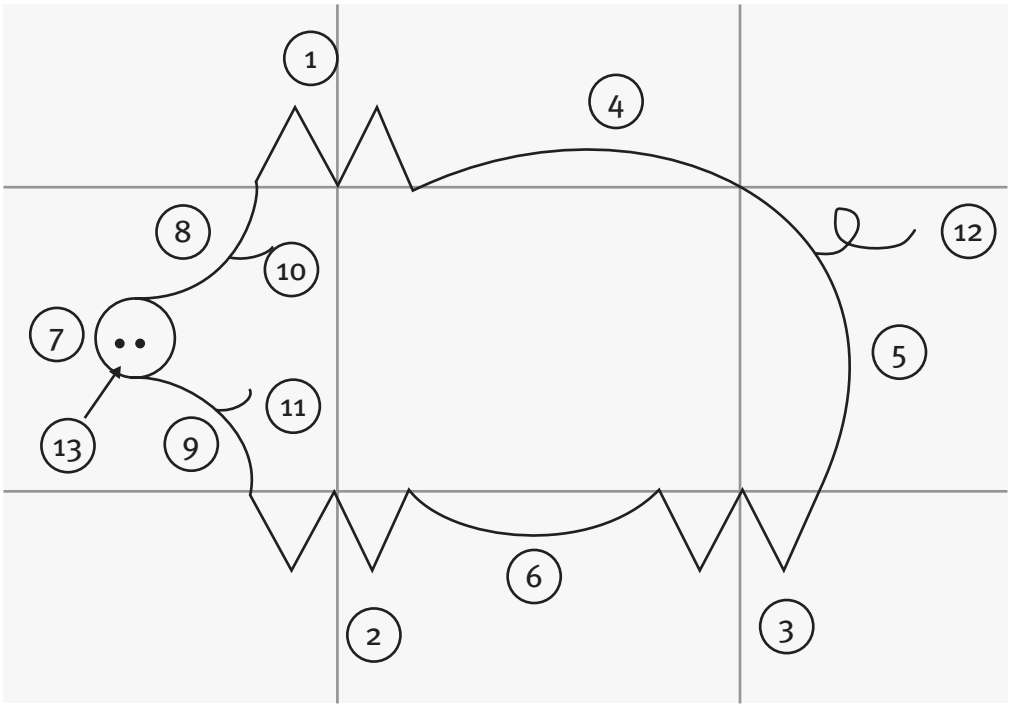
The participants are again given two minutes to draw the pig. Each person reads and interprets the instructions according to their own frame of reference. The facilitator again collects all the papers, and again the group sees a great deal of variation, albeit less than in stage 1. As in the first stage of the exercise, a number of the participants typically are unable to finish the activity in the time allowed.

Stage 3: Each participant is again given a sheet of paper with nine equal squares on it. This time, the facilitator provides the group with instructions for drawing the pig as well as an image of what the final result should look like. The participants are given one minute to complete the task. At the end of the time, the facilitator collects the drawings and finds that virtually everyone was able to complete the task, with a striking reduction in the variation of the drawings (see exhibit 10.3).

Stage 4: The participants review the group's drawings from each stage, further illustrating the points of the exercise.

The overall lesson from this exercise may be obvious, but it is a dramatic demonstration in an experiential learning framework that allows the participants to visualize

Exhibit 10.3
The Standard Pig



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variation and how important standard work is in reducing variation. It also emphasizes the importance of experience in the work performed. The more learning opportunities of this nature that practice members experience, the more able they are to understand why similar patients may have very different experiences and perceive differences in service in a practice.

The red bead experiment and the draw a pig exercise might be seen as demonstrating contradictory lessons. The red bead experiment implies that work should not be standardized and that workers should be involved in the work process, whereas the draw a pig exercise seems to support the notion that standardization improves quality by reducing variation. Both implications are true. Practices must standardize effective processes and continually improve them through worker involvement. In that way, they provide the best methods of performing the work at any given time to all their patients.

Direct contact with the patient requires that professional judgment and variation be applied, but these direct contact processes, including front- and back-office operations and how patients flow through the practice, can all benefit from standardization.

Lean

Regardless of a practice's size or the services it provides, a fundamental knowledge of the quality improvement process is essential. We can always do better, and we should always consider that opportunity in everything we do. The minute a practice stops improving or looking for opportunities to improve, it begins to stagnate. Staying the same in a medical practice is not an option.

Lean is a quality improvement process created by the Toyota Motor Company that focuses on the elimination of waste (Liker 2004). Waste is defined from the perspective of the customer—for medical practices, the patient—as unnecessary steps in a process or procedure that create no value for the customer.

The eight commonly identified types of waste in Lean are as follows:

1. *Overproduction*, or doing more than is required or doing it earlier than needed.
2. *Waiting*, for people, supplies, or activities, at any step in a process. Waiting to see the clinician, standing in line to register, or being on hold during a phone call are examples.
3. *Transportation*, or getting people or things to their required locations. Moving mobile equipment from place to place is an example.
4. *Inventory*, such as records, supplies, and unfinished work. Having unfinished charts or keeping more supplies at the workstation than needed are examples.

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5. *Motion*, or extra steps taken because of inefficient layouts of the workplace. Having a workstation far away from the examining rooms is an example.
6. *Defects*, or rework that must be done because of an error. A lost lab test or record is an example; another is repeat phone calls to the practice due to slow follow-up.
7. *Underutilization of people*, or having people work beneath their skill level and not listening to their ideas.
8. *Overprocessing*, or performing work that does not add value for the patient or creates a misalignment with the patient's needs because of a quality definition. Examples include activities like excessive lab testing, treatments, unnecessary or inefficient scheduling of steps, or having multiple forms that ask the same questions.

The time a patient spends waiting to see a provider in a medical practice provides no value to the patient and, in fact, provides no value to the practice. In the author's experience, the number-one complaint in many medical practices is waiting time: Of the more than 5,000 complaints reviewed, roughly 4,000 were related to complaints about wait times or delays in receiving test results. A typical Lean project in a medical practice undertaken to address patient wait times is demonstrated by the following story.

The CEO of a well-known healthcare organization was showing a Lean master from Japan around the organization. With much pride, the CEO guided the master from place to place and gave a careful explanation of the services and aspects of each location. When they entered a waiting room, the Lean master asked, "What space is this?" The CEO replied, "It's a waiting room." The Lean master responded, "What waits here?" And the CEO, now startled, replied, "Patients, of course!" The Lean master said, "Didn't you know they were coming?" The CEO said, "Of course. Some of them have had appointments for almost a year." At that, the Lean master looked the CEO in the eye and said, "Aren't you ashamed?" He meant, shouldn't the practice be ashamed that it was not better prepared to receive patients even though it had ample time to do so? The CEO gained a new perspective following this visit (Virginia Mason Medical Center, personal communication, 2013).

The Lean master only asked questions up until the final statement. He was helping the CEO understand the nature of the situation, not simply telling him what it was. In addition, the story helps us see that we are often too interested in explaining why something is wrong or why it cannot be changed, rather than thinking deeply about how we might improve the situation. This excuse making may be particularly evident in healthcare because of the industry's reluctance to admit its shortcomings.

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Another important aspect of Lean is visual management. Lean relies on visual management to be effective; this means going to see what is happening in the work area, not simply reading a report or reviewing second-hand information. Leaders must be present in the *gemba*, the place where the work occurs, and determine for themselves what is taking place. Reports and accounts by others have a biased frame of reference, are subject to misinterpretation, and, in the rare case, are intentionally deceptive. Visual management is an essential skill for the effective practice manager; it can even be practiced at some level in the largest provider practices.

The Five Whys

One Lean tool used for root cause analysis is known as the "five whys." If you ask why in response to each statement when looking at a situation, the root cause of the issue will emerge if "why" is asked enough times. Take the following example:

1. Why do patients have to wait? Because we do not allow enough time for each visit.
2. Why? Because we have routinely scheduled patients at 15-minute intervals.
3. Why? Because that's the way we have always done it, and we need to see a certain number of patients each day.
4. Why? The providers often do not stay on schedule.
5. Why? Because they're too busy.

All these answers hold the possibility for change. One can begin to see the nature of the five whys and its usefulness as a technique in root cause analysis. Implicit in the technique is the idea of helping others discover solutions and the causes of problems rather than relying on management to tell them what to do. A fundamental aspect of Lean leadership and management is to create problem solvers.

The Six Ss

Another easy-to-apply Lean tool is the "six Ss." This technique is useful in helping practice members organize their work area. It involves six steps:

1. *Sort*. Remove all unnecessary supplies and items from the work area. In essence, reduce the clutter.

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2. *Set*. Organize the remaining items in the work area in a way that is logical and useful.
3. *Shine*. Clean the work area and inspect it for needed repairs.
4. *Standardize*. Prepare written standards for how the workspace is to be organized, which may include labels or even outlines of where particular items are to be located.
5. *Sustain*. Ensure that the standards are applied on a regular basis by inspecting the work area.
6. *Safety*. Ensure that the work area is safe and free of visible hazards, such as electrical cords that create a trip hazard or medicines that are not stored properly and pose a poison hazard.

Success is achieved when waste created by a poorly organized work area is eliminated, thereby removing the need to look for supplies or equipment. This strategy can also eliminate the largest waste of all: an injury caused by unsafe working conditions (Jackson 2009).

Conducting a Lean Project

The philosophy of continuous improvement is often referred to as *kaizen*, a Japanese business term, and can be used interchangeably with "Lean project." After a six S exercise is completed, a more ambitious undertaking in the medical practice is a Lean process improvement project. Some additional training in Lean is advisable for those who wish to become proficient practitioners of the technique (Martin and Osterling 2007). A Lean process improvement project involves seven important steps.

Step 1: Introduce the Project

Introduction of the project is a critical first step in the process. All members of the team must understand the nature of and the desired outcome for the project. It is also important to gain commitment to the project from each team member.

Most practices have several issues that require attention and could benefit from an improvement project. On the basis of input from different areas of the practice, the leadership should select projects and prioritize them according to the greatest benefit to patients in the practice. Examples include reducing waiting time, reducing the time patients are left on hold when they call, reducing billing cycle time, reducing medical record error rates, and increasing immunization rates for children in the practice.

Practices need not undertake and complete one project at a time. In fact, multiple simultaneous projects may be considered, depending on the capacity of the practice.

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Step 2: Define the Problem

Projects often fail because participants lack clarity about the nature of the project and, more specifically, a clear definition of the problem being addressed. Problem statements need to be concise, measurable, and within the power of the team to manage. For example, addressing Medicare regulations would be unrealistic for a process improvement team as they are beyond the power of the team to change them. Of course, a process that helps the practice comply with a particular regulation might be a worthy project.

Process improvement projects are always data driven. The process being examined must have measurable features that can be tracked over time as a way of measuring improvement. The adage "You can't manage what you can't measure" is true for process improvement. The team must determine what metrics (measurements) will be collected for the project. Existing data are helpful for establishing a baseline measurement for the process.

A simple charter for the team can be used that indicates the purpose of the team, the problem it is addressing, and the desired outcome. Such a document helps prevent "scope creep," when the purpose and focus of the project begin to drift and the team loses sight of its original purpose. Certainly, revising the problem statement is necessary if the team discovers new information that better addresses the original concern. However, this decision should be made in a deliberate and orderly fashion.

Step 3: Introduce the Project, Form a Team

Unlike some approaches to problem-solving in which the leadership or the manager makes the decision about what to do, effective QI procedure takes a team approach, such that the stakeholders of the process take part in improving the process. This notion stems from the understanding that those who perform the work have the greatest insight into how to improve any work process. The team should be multidisciplinary, as attention should always be paid to how the work comes to the practice, what the practice does with it, and who encounters the results of the work. These teams should be relatively small; five to seven members is often deemed an appropriate number, depending on the size of the practice.

One essential member of the team is a physician champion. This individual is a physician who has demonstrated an interest in the project, works well on teams, and has the time and inclination to serve on the team. A physician champion not only provides expertise but also represents the clinicians and can help explain and garner support for the project, which will be necessary for its acceptance and success.

Another valuable idea for beginning a process improvement activity is to start with a small issue first. This approach allows the group to develop expertise, experience some success, and gain a thorough knowledge of the concepts before beginning large, complex projects.

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Step 4: Determine the Present Circumstances

Defining the current situation is crucial in process improvement. A process flowchart, also known as a value stream map, may be helpful in identifying all the parts of the process, particularly those areas that are of the greatest concern. Exhibit 10.4 illustrates a simple flowchart.

A flowchart defines an overall process, such as patient flow through the practice, or a subset of that operation—for example, the check-in process.

The critical points in the process flowchart include the input, which is the starting point of the process; the tasks performed using the input; and the production of an output, which can be further utilized in the operation.

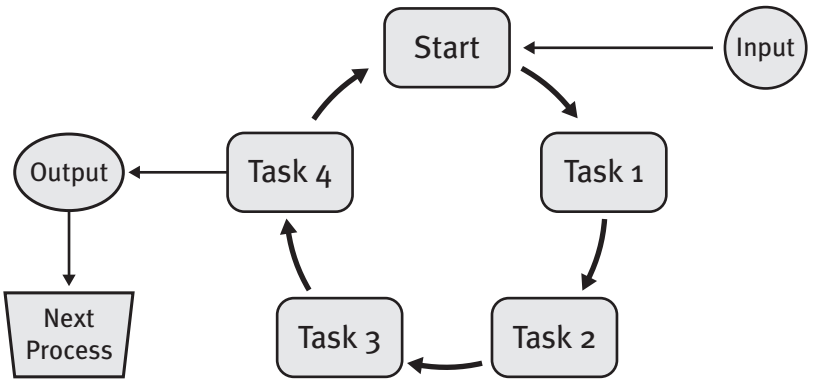
The input should be carefully identified, as should each task and the desired output from the process. The pace of the process, or the time taken to perform each task, is called *takt time*. Takt time is often used as a metric in process improvement, especially in processes that seem to get bogged down and produce substantial waiting times or other unnecessary delays.

With a well-designed flowchart, the team should be able to identify areas that require improvement (Jackson 2013).

Step 5: Launch the Plan-Do-Study-Act Cycle

At this point in the Lean process, the team must determine what possible solutions may improve the process being examined, and a pilot of the solution should be tested. The Plan-Do-Study-Act (PDSA) cycle, discussed in chapter 8, allows the team to experiment with a proposed solution to determine its effectiveness in improving outcomes. As shown in exhibit 10.5, the PDSA cycle can be repeated with new ideas and solutions until an

Exhibit 10.4
Simple Process Flowchart



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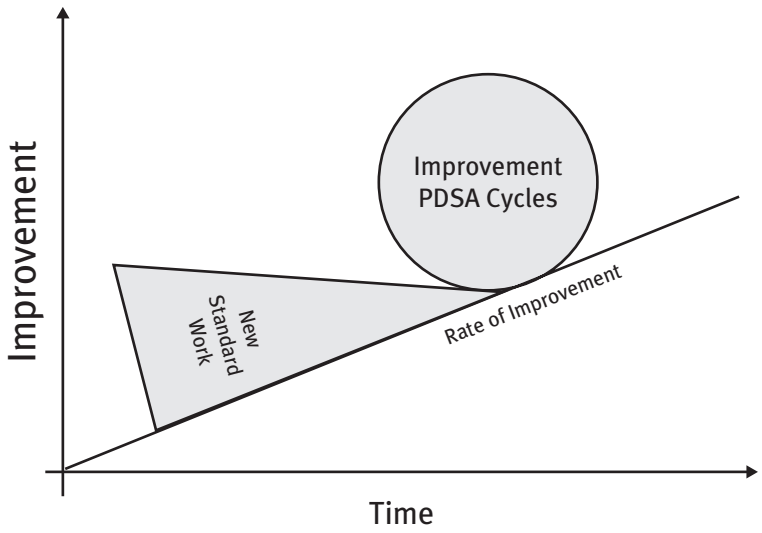


Exhibit 10.5
Standard Work

optimum outcome is achieved. At that point, new standard work is created to sustain the improvement over time. If new standard work is not documented and communicated to those involved in doing the work, the process quickly reverts to its old methodology. As the illustration shows, the new standard work becomes the wedge that prevents the improvement from going back in time.

Step 6: Implement the Improvement

Once the team is satisfied with the results of the pilot study, widespread implementation of the new standard work is deployed. This implementation requires careful communication, changes in job aides or procedure manuals, and any training to adopt the new process. The importance of this step must not be underestimated. Adequate time and attention must be taken to ensure acceptance and understanding of the new procedure. Variation is the enemy of quality, and implementing new standard work around important processes in the medical practice is essential to improving the outcome of practice activities.

Step 7: Reflect on the Process

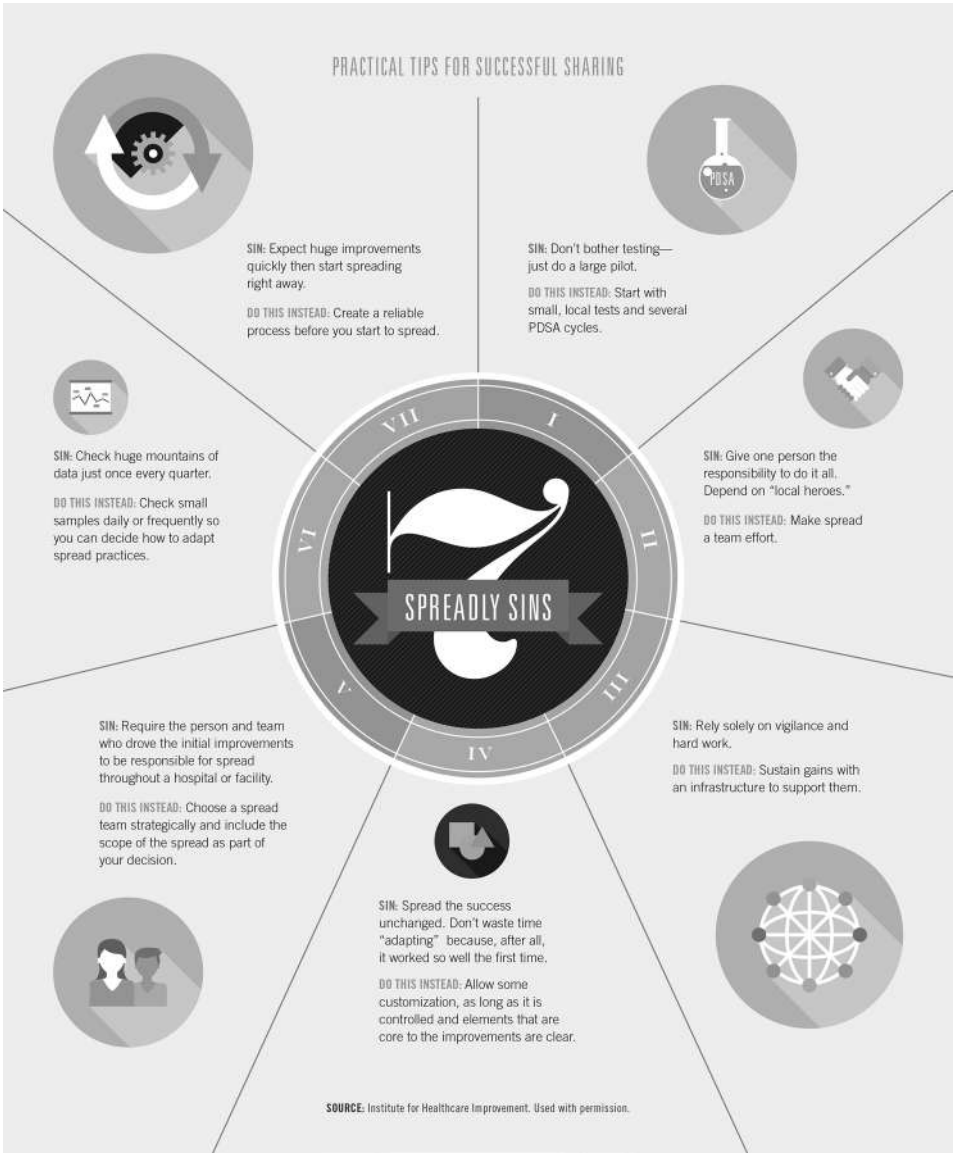
Every learning activity must be followed by reflection. This step provides an opportunity to ask what went well and what did not go as well as expected. What should the practice do differently next time to improve the process of quality improvement? It is also a good

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time to celebrate the success of the project. In this step, the "three Rs" are essential (Bicheno and Holweg 2008):

1. *Reflection*. What have you learned from this experience, not only in terms of the process being examined but also in terms of carrying out a Lean project?

EXHIBIT 10.6
Tips for Sharing Results from Improvement Work



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2. *Reward*. The success and sometimes the simple completion of the project should be celebrated. Rewards can be simple recognitions of the efforts that individuals made in the learning.

3. *Renewal*. This is a good time for renewal and thinking about refocusing on the mission of the practice and on each member's role in producing the outcomes the practice wishes to achieve. That sense of renewal and refocus is instrumental in helping motivate and maintain the commitment necessary for optimal practice performance.

The IHI developed an informative and practical tip sheet, titled "The Seven Spreadly Sins," for successfully sharing the results of process improvement work to increase adoption and utilization of the new standard work (see exhibit 10.6).

Quality Improvement Tools

The art and science of quality improvement are not limited to Lean, and many additional tools can be used in a Lean project or independently to help the manager and leaders of the practice address improvement issues. QI is a continuous process. The following list of tools can be used to identify and manage quality issues (Public Health Foundation 2020):

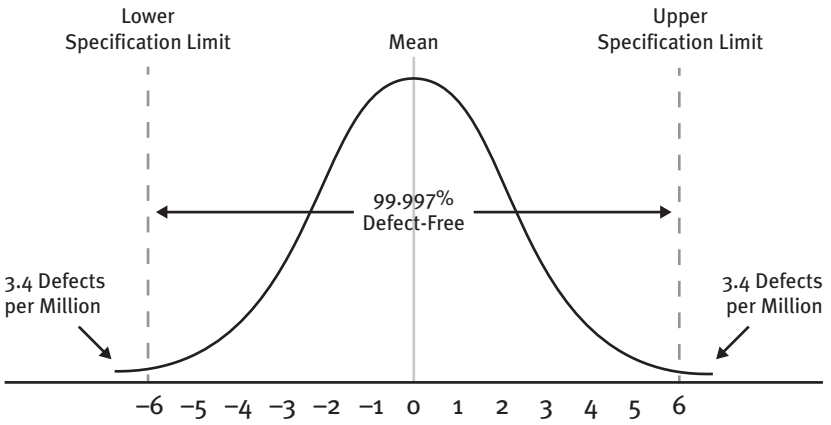
- *Checklist or check sheet*. These simple tables or lists enumerate all the necessary steps or processes needed to complete a function. They are designed to assist the team or the individual performer and prevent him or her from forgetting any of the important steps in a process or procedure.

  Atul Gawande (2011) brought new attention to using checklists as a way of reducing errors and increasing quality in surgery. The concept stems from the fact that human beings can only focus on so much at one time and cannot always remember to do everything in a complex sequence of activities. James Reason (1990) adds that unaided recall is only about 90 percent accurate—which for activities as important as healthcare delivery is simply not good enough. In the Six Sigma methodology (discussed later in this chapter), "good enough" is represented by an error rate of 3.4 defects per million opportunities, six standard deviations (6σ) from the mean, or 99.997 percent error-free, as shown in exhibit 10.7.

  Relying on human accuracy only, one might expect ten defects per hundred opportunities, or 100,000 errors per million opportunities, versus 3.4 if 6σ is achieved (Total defects = Total opportunities × 1,000,000).

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Exhibit 10.7
Graphic Representation of Six Sigma



- *Control chart*. A control chart is used to measure the variation in a process over time. It records the activity of a process as a single line plot and indicates the upper and lower limits the process has produced. The wider the limits, the more variation is in the process, and this kind of chart allows the user to determine when the process is out of control and if the cause of the variation is due to special causes or normal variation.
- *SWOT analysis*. As discussed in chapter 5, SWOT analysis is a way to capture the strengths, weaknesses, opportunities, and threats of the practice as part of a strategic planning or evaluation process.
- *Run chart*. Similar to a control chart, a run chart measures a process over time as a single line measure. It is the simplest form of plotting activity. Unlike the control chart, it does not contain upper and lower limits.
- *Fishbone diagram*. These diagrams are also known as Ishikawa diagrams or cause-and-effect diagrams, which is more descriptive of their use. The fishbone diagram is a visual way of capturing possible root causes of a problem.
- *Scatterplot*. These plots are simple graphs depicting two variables as discrete events on two axes as a way to determine a potential correlation.
- *Nodes of influence analysis*. This is an analytical tool for determining who in any group of people has influence on the other members of the group. This technique is useful when determining the key individuals to enlist in introducing change to a practice.

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- *Brainstorming*. Usually conducted with facilitation, brainstorming is a technique for obtaining input from a group without placing undue influence on the individual members of the group, thereby obtaining many ideas from the maximum number of people.
- *Affinity chart*. This tool provides a method for organizing key themes from a brainstorming activity.
- *Focus group*. For this type of information gathering, members of a target group are convened to obtain facilitated input on issues or questions important to the practice.
- *Focused conversation*. Similar to the focus group, a focused conversation usually involves a facilitator and the issues or questions are related to particular issues or questions. However, focused conversations typically are conducted with only one or two individuals.
- *Appreciative inquiry*. This method seeks input from stakeholders by asking for examples of positive experiences they have had. For example, a medical practice might ask a patient an appreciative inquiry such as "Tell me about a time when you received excellent care." With this approach, the facilitator is able to glean important information about what made the visit a positive experience. It also focuses on the positive rather than simply looking for the counterfactual in reviewing complaints, and it does not presume an understanding of what patients expect. We often like to think we know, but we usually don't.
- *Histogram*. This tool is a simple graph consisting of rectangular bars that represent proportional frequency of the process or activity being measured. It provides a means to convey information quickly and in a way that illustrates variation.
- *Pie chart*. This simple graph illustrates a group of data where each section of a circle represents a proportion of the whole. Pie charting is one of the simplest ways to present information.
- *Prioritization matrix*. A prioritization matrix is a simple tool to sort a diverse group of items by order of priority. The priority is determined by the criteria of the user.

Six Sigma

Six Sigma was developed by Bill Smith at Motorola Corporation (Bhargav 2023). It is based in part on the work of Walter Shewhart, a statistical process control engineer and

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mathematician (Shewhart and Deming 2011), and on the concept of the normal curve, which dates back to the research of Carl Gauss in the eighteenth century (Tent 2006).

As with all work that relies on statistical analysis, Six Sigma looks at inputs as a function of their output. This relationship can be expressed as

$$Y = f(x),$$

where Y is the inputs, and the outcome is a function (f) of the individual components (x) that drive that outcome.

Six Sigma uses the DMAIC methodology to work through improvement processes as follows:

1. *Define* what is critical to the patient, and map those processes at a high level.
2. *Measure* the inputs by planning the data collection to validate that the measurements are accurate. Establishing baseline measures for the processes being studied is a key activity in DMAIC. This step also includes identifying the variables that are most responsible for producing the desired outcome.
3. *Analyze* by using statistical methodology to test which inputs have the greatest influence on the outcome.
4. *Improve* by designing solutions and selecting one to pursue and then determining the controls and type of culture needed to prove its effectiveness and sustain it.
5. *Control* by developing feedback loops, creating a process control plan to sustain the gains implemented, and then replicating the cycle.

Six Sigma allows organizations to convert a practical issue into statistical terms and then find a statistical solution that can be implemented in practice. For example, when looking at wait times, a medical practice measures them to identify the components that affect the wait time, performs statistical analysis to determine those components that are most important, creates a solution that should address them, and implements the suggested solution. Say the overall wait time from check-in to leaving the practice following the visit is 15 minutes on average. The practice notes that the check-in portion of this wait creates a significant increase in the patient's overall waiting time at the office and institutes a solution—routine preregistration—that is expected to reduce check-in time. By reducing check-in time, the practice reduces overall wait time.

As with Lean, most Six Sigma practitioners receive training on the tools and techniques involved (Barry, Brubaker, and Murcko 2002; Pyzdek and Keller 2014).

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One debate that surfaces from time to time in QI circles is whether to use Six Sigma or Lean strategies. On the one hand, achieving an error rate of 6σ, the "namesake" goal of the Six Sigma methodology, or 3.4 defects per million opportunities, is such a daunting prospect that people feel demoralized and unable to commit to the QI process. Lean, on the other hand, focuses on improvement without placing a value judgment on the magnitude of that improvement. Although the ideal aim is to maximize the opportunities to improve the care provided to patients and the processes that serve the practice, the Lean process tends to be more palatable in practice than Six Sigma is.

That said, Six Sigma is often very effective in the hands of skilled quality improvement practitioners. The primary differences between Lean and Six Sigma are illustrated in exhibit 10.8.

As a rule of thumb, use Lean when streamlining any process and reducing process waste; use Six Sigma when process metrics are more difficult to collect or understand and project success requires analysis of multiple inputs. These are often chronic problems. Regardless of the strategy chosen, success hinges on applying the right tools.

Quality Circles

A concept that is being revived in quality management is the quality circle. A quality circle is a management technique that enlists the help of employee volunteers to solve problems related to their own jobs (Inc. 2020).

Basu and Wright (2003) suggest that quality circles have not been successful in the past because they did not follow a set of basic rules:

1. Quality circles must be composed entirely of volunteer staff members.
2. Participants should be representative of different functions in the organization.

Lean = Improvement focused on streamlining patient flow and eliminating the eight deadly wastes.	Six Sigma = Process breakthroughs, design, or improvement. Teams focused on eliminating chronic problems and reducing variation in processes.
• Define value • Measure • Analyze process (flow) • Improve process (pull) • Create new standard work (for the improvement)	• Define • Measure • Analyze • Improve • Control

Exhibit 10.8 Comparison of Lean and Six Sigma

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3. The problem to be addressed should be chosen by the *circle*, not by the practice management or leadership, and the choice should be honored.
4. Practice management and leadership must be supportive of the circle and fund it appropriately.
5. Circle members must receive adequate training in problem-solving.
6. The circle must choose its own leader from within its membership.
7. The practice management should appoint a senior-level management employee as the mentor of the team, and should help members of the circle achieve their objectives.

Hamilton (2023) recently advanced the use of the quality circle as an excellent way to incorporate "deep penetration" into the problem-solving of an organization. More on the use of quality circles can be found in a number of sources (see, e.g., Inc. 2020; Koneru 2018).

Data Analytics

Data analytics is discussed in detail in chapter 12 because it plays a big role in the future of healthcare. In this section, we introduce data analytics in the context of QI.

Data are useless unless they can be turned into information that can be acted on. The lack of utility of the enormous amounts of data generated by the healthcare system has been a significant issue in the field. Paper records, multiple sources of records, and the general inability to bring information together to make sense of it are just some of the barriers to using data effectively.

Consider this story: As a population health strategy, a large multispecialty practice aims to determine whether A1c levels—an important measurement of diabetic control in patients—are recorded not only for all diabetic patients but also for patients diagnosed with a heart condition. Despite the meaningful use mandates (see chapter 3), the practice has not yet converted its paper-based charts to an electronic health record system. In the absence of digital retrieval capabilities, the practice manager begins the data collection process by asking for a list, by chart number, of the records for all relevant patients. Next, he asks the medical records department to pull each of the charts on the list to check if an A1c level was recorded. When he receives the first hundred charts, he looks at the first chart and notes that the A1c level is not recorded, even though this chart is for a diabetic patient. He walks back to the medical records department to see whether the laboratory record was simply not placed in the chart. Receiving an inconclusive answer, he seeks out the provider to verify that the A1c level was ordered. Ultimately, he cannot find any A1c data for this patient. He cannot be sure whether the test was performed; the only verifiable information he obtained is that the level was not recorded.

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How does a practice in this situation collect the data necessary to conduct population health activities and monitor the effectiveness of the practice without an efficient data collection process? The conclusion is obvious: Practices must develop digital systems to collect and manage patient information to improve the health of a patient population. Payers and patients alike are demanding such capabilities.

Making decisions on the basis of large sets of data without the use of powerful analytical tools is beyond the capacity of the human mind and any manual capability. However, the use of these tools is still fragmented and uneven in healthcare, especially in small medical practices. Without data analytics, the practice can be distracted by its paradigms and beliefs, which may obscure reality. We must use data to drive decisions, reduce bias, and effect improvements in the delivery of care.

Discussion Questions

1. Describe the difference between "removing the bad" and "moving mean performance" for improving practice quality.
2. Describe the components of the Triple Aim and Quadruple Aim and their importance to the US healthcare delivery system.
3. Identify and discuss the principles of Lean process improvement.
4. Write a brief outline of the steps in the Lean process.
5. How do Lean and Six Sigma differ?
6. Identify the components of the PDSA cycle and discuss how each component is used in quality improvement.
7. Discuss the concept of the quality circle and its use as a quality improvement tool.
8. Discuss the "seven spreadly sins." Why are they important to quality improvement?

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CHAPTER 11

EMERGENCY MANAGEMENT AND THE MEDICAL PRACTICE

An investment in knowledge pays the best interest.

—Benjamin Franklin

Learning Objectives

- Appreciate the need for emergency planning and management in the medical practice.
- Understand the connection between the medical practice and the community in the context of emergency planning and management.
- Identify the key resources typically available in the community for managing an emergency.
- Recognize the steps of an emergency plan and their functions.
- Be able to develop an emergency plan for a medical practice.

Introduction

In 1990, the administrator for a medical practice at a health system in Louisville, Kentucky, left his downtown office to visit one of the medical clinics he helped manage. Something about the way his day was progressing drew him to that office. Upon entering the practice,

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he approached the appointment desk, where he saw Dr. Patrick Casey, a young family practitioner. He said, "Dr. Casey, how's it going today?"

Dr. Casey replied, "Well, it's actually my day off, but I have a very difficult patient who needs to go to the hospital. I just came in to try and convince him to get the services he needs."

A few other pleasantries were exchanged, and the two walked toward the examination room. Outside the exam room, the administrator placed his arm around Dr. Casey and told him to take care and enjoy the rest of his day off. He then turned the corner, leaving Dr. Casey to enter the exam room to see his patient.

In a matter of seconds, a gunshot rang out, and then another. It was hard to fathom at first what the sound was, but it soon became apparent that there was a shooter in the building. The administrator immediately asked people to leave the building or hide as quickly as possible. He told them that shots had been fired and the situation was unclear. A 911 call was placed immediately, and the administrator headed to the pharmacy on the other side of the building, along the way ushering people to the safest possible locations, either sheltering in place or exiting the building. When he reached the pharmacy, he informed the staff of the situation; they sheltered in place and waited as law enforcement officers secured the building.

In the aftermath of the emergency, the administrator learned that Dr. Casey had been shot when he entered the exam room by the patient who was waiting to see him. The patient then turned the gun on himself. Dr. Casey died almost immediately, as did the patient (*Courier-Journal* 1990).

This is a true story, and the administrator is the author of this text. This event was a defining moment in my career because it helped me realize that the unthinkable can happen, and we must be prepared for that possibility. It brought into focus what it means to lead in a difficult time, during unfamiliar events. I also knew I had to do more as an administrator to prepare to deal with emergencies.

In the past, the need for emergency preparedness and emergency management in the medical practice was limited. In general emergency or disaster situations, medical offices could close the practice if needed, allowing emergency matters to be dealt with by community agencies and local hospitals. As in many small businesses, the threat of an active shooter or a similar emergency was rare and not a high priority in terms of preparedness for the practice.

The New Nature of Emergencies

That thinking is beginning to change. It has become clear that the nature and types of emergencies playing out in a wide range of communities pose threats to the safety of the patients and employees of the medical practice. In addition, as we have learned from disasters such as 9/11, Hurricane Katrina, incidents such as Dr. Casey's death, and other

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catastrophic situations, emergencies do affect medical practices, and their scope can be virtually unimaginable. The need to marshal all the community's medical resources for emergency preparedness and management, in conjunction with community, state, regional, and federal agencies, is clear.

A practice emergency can be defined as any incident or activity that disrupts the practice for more than 24 hours. Medical practices may experience several types of emergencies:

- Natural events, such as floods, hurricanes, or snowstorms
- Acts of violence, such as an active shooter or a violent patient
- Building-related emergencies, such as a fire
- Outbreaks of infectious diseases, such as Ebola, Zika, influenza, or COVID-19

Medical practices have become sophisticated in their understanding that the scope of an emergency may require that all available resources be brought to bear to resolve or survive it. Every practice manager and leader must have a basic knowledge of emergency preparedness and management. In addition, each practice needs to have an emergency preparedness plan in place—and review it routinely—should the need arise to enact it.

Emergency planning must focus on protecting the human resources of the practice; safeguarding the practice's assets; and managing patients in terms of capacity, flow, and degree of injury or illness in a wide-scale emergency scenario. Practices have numerous options for the type and format of plan they adopt; these options need to be examined and procedures developed in accordance with the other existing policies of the practice. These plans and procedures must also be communicated to all stakeholders, including the providers, nonclinical staff, community members, and patients.

Options for medical practices during an emergency include the following:

- Close the practice and refer all patients to the nearest hospital emergency department or urgent care center.
- Close the office to face-to-face encounters and perform telephone triage only, such as assisting patients in refilling prescriptions and providing guidance to patients seeking an alternative channel of care.
- Remain open and care for those needing urgent attention.
- Assign the clinical staff and critical support staff to work with local emergency facilities to address the care needs of the community.

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- Join the Medical Reserve Corps and perform duties in accordance with the community's needs. This group operates under the purview of the US Department of Homeland Security; local groups are formed that are primarily made up of both retired and practicing clinicians.

This list reflects progressive levels of involvement in emergency management, but all require substantial consideration and planning, from how alternative operating procedures work to what contribution the practice is willing to make to community preparedness and response.

Effective emergency planning depends on the ability to anticipate and play out multiple scenarios (scenario development) and potential responses to those scenarios. Often, practice personnel must think in terms of the unimaginable—events that once seemed far-fetched but now are not unrealistic. In the case of Hurricane Hugo in 1990, no hurricane of that magnitude had ever reached Charlotte, North Carolina, in recorded history. Charlotte-based medical providers were unable to reach many facilities because the roadways were completely obstructed by trees and other debris (Lyttle 2014). It was the unimaginable scenario that is now possible.

Practices need to consider a number of questions as they select and develop an emergency plan:

- What are the patients' expectations of the practice in an emergency scenario?
- Do patients expect the practice to be open and available for their care in a widespread emergency?
- Will you treat patients who present without records? If so, how?
- What resources and personnel is the practice willing and able to provide in case of a local, regional, or national emergency?
- What alternative operating plans do you have for the practice?
  - What if the internet is down and other communication methods (e.g., landline, cell phone) are unavailable?
  - What contingencies are in place for emergencies that damage the office building or limit access to medical records and other information?

To address the last question, for example, off-site storage and ready availability of records are essential. Next to its people, a medical practice's records are its most important asset. Without the medical, billing, and other records, you are literally and figuratively out of business.

Prior to events such as 9/11 in 2001; Hurricane Katrina in 2005; and the devastating EF-5 tornado in Joplin, Missouri, in 2011, medical practices did not always think about the scope of disasters. Years ago, practices commonly stored records in a nearby location,

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but Katrina taught us a lesson: A disaster of regional proportions may destroy any local storage locations, giving the term *off-site* new meaning.

Today, of course, the US healthcare system is dependent on all manner of electronic systems. Planning, policies, procedures, and drills for "downtime"—regardless of the cause—are essential for all medical practices so that they may meet the expectation of the practice to operate during outages or emergencies.

The expectations of patients in these unusual circumstances need to be understood by the practice, and the intentions of the practice to meet those expectations must be understood by the patients. Of course, the type of practice has an important bearing on this determination. Practices that routinely see life-threatening emergencies and acute situations may find locating alternative channels of care difficult and thus may be likely to remain open under disaster-related circumstances even if it is with a small staff dealing only with the most urgent needs.

The Key Dilemma

One dilemma that any medical practice faces in emergency preparedness and management is whether the practice should expend valuable resources to prepare for an event that has a low probability of occurrence but, once it occurs, will bring devastation, making the failure to prepare for it costly.

An important aspect of this dilemma is the ongoing nature of emergency preparedness. Although some organizations do a good job in the planning process, they often fail to keep those plans current and engage in activities to keep staff aware and prepared. If the staff of a practice is unfamiliar with and poorly trained in emergency preparedness plans, those plans may be of little use in an actual emergency. The onset of an emergency is not the time to dust off the plan and read it.

The need for emergency management of the medical practice exists at two levels. The first level is management of the medical practice during emergencies, dealing with the practice itself and its medical and nonmedical staff. The second level is characterized by the need for medical personnel to be called on to assist in the broader community emergencies because so many emergencies, whether arising from natural disasters, terrorist attacks, or epidemics, require medical assistance. With this understanding, the importance of emergency management may obviate the need for a practice to decide between two aspects of the cost dilemma.

Emergency Management

As mentioned earlier, at least a basic understanding of the principles and scope of emergency management is helpful to the modern medical practice's management and leadership (Markenson and Reilly 2011). Emergency management encompasses a number of good

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management practices, such as clear and concise communication and careful planning and training.

Furthermore, although a practice may elect to not be involved in community or regional emergency preparedness and emergency management (EP/EM) efforts, it should be aware of the EP/EM activities and programs where the practice resides. Exhibit 11.1 illustrates the levels of education outreach that typically exist in communities today. Depending on a medical practice's scope, size, and resources, it may be asked to play a significant role in EP/EM.

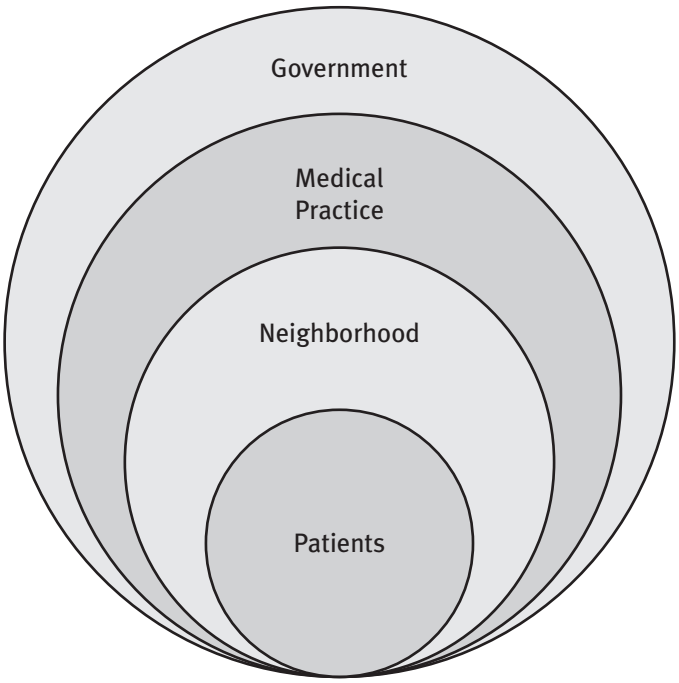
Emergency management in the medical practice comprises four phases (FEMA 2007):

1. *Mitigation*—the activities that the practice undertakes to lessen the severity and impact a potential disaster or emergency may have on its operations.

Exhibit 11.1
Education and Outreach

Preparedness is the shared responsibility of all levels of government, the private and not-for-profit sectors, and individual citizens.

Education and outreach are designed to reach out to all partners in preparedness, educate them about their roles, and engage them in the preparedness process.



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2. *Preparedness*—the activities that the practice undertakes to build capacity and identify resources that may be used should a disaster or emergency occur. In preparedness planning, community integration is key. Community integration is a process of developing relationships with and a mutual commitment to other providers in the community, which can be called on in an emergency to share resources or staff or to accept patients.
3. *Response*—the activities that take place at the time of an actual emergency.
4. *Recovery*—a plan to continue or reestablish business operations that involves
    a. disaster recovery, either short- or long-term;
    b. insurance coverage;
    c. inventory systems;
    d. information systems;
    e. outsourcing of care provision, if necessary;
    f. security, of both facility and documents;
    g. potential to provide assistance to staff; and
    h. public relations and communications with stakeholders.

Developing an Emergency Preparedness Plan for the Practice

Preparing an emergency plan for the practice is essential for effectively addressing the practice's needs during an emergency or a disaster. The plan must be kept as simple as possible to do the job; it needs to be understandable and usable, not dense with unnecessary detail.

A plan offers a sense of organization, confidence, and awareness for practice members should an emergency arise. Calm demeanor is a key to effectively dealing with emergencies, and a well-designed and well-implemented plan helps instill an atmosphere of calm under stressful situations. Recall the story of Captain Chesley "Sully" Sullenberger, the US Airways pilot who guided a damaged aircraft to a controlled crash landing on the Hudson River, saving all aboard. He and his crew exhibited no panic, just a calm, well-practiced execution of emergency procedures. Captain Sully had practiced for this potential event on numerous occasions, and his instincts and skill set were honed by those experiences. Medical practices need to be at that same level of readiness to deal with emergencies that arise (Prochnau and Parker 2009).

A necessary first step is to consider the requirements of an emergency preparedness plan from the points of view of all stakeholders affected by the emergency. Often, an

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emergency preparedness plan is seen as a mandate rather than a living, useful document, and it is given little additional thought. Practices must avoid this trap and instead put deliberate effort into thinking about who will use the plan, what components will help them in an emergency, and how usable it will be to deploy in the case of a disaster. Many emergency plans are incredibly detailed and overly complex, and they will never be put in effect in an emergency. For example, think about how individuals learn and follow instructions, as with the draw a pig exercise in chapter 10. The level of variation demonstrated in that exercise applies to any process or plan, and that variation needs to be accounted for when devising a plan for an emergency.

One recommended method for emergency planning is the all-hazards preparation framework. A medical practice rarely knows with certainty what type of emergency might beset it, even for those practices that undertake a careful analysis of vulnerabilities (vulnerability analyses are discussed in more detail later in the chapter). However, common occurrences characterize any emergency or disaster situation and dictate the need to take the following measures:

- Safeguard people
- Safeguard property
- Ensure communications
- Develop alternative operations
- Manage the expectations of each member of the practice

Many free educational courses on emergency planning and management are available from the Federal Emergency Management Agency (FEMA) at https://training.fema.gov.

Exhibit 11.2 illustrates the planning cycle. Note that the plan requires consideration of the nature of the practice and how to equip practice members to respond to emergencies. Training is critical, including exercises for improving proficiency and evaluation and enhancement of the emergency plan. So often, plans are left untested and untouched, and then, of course, they work at a suboptimal level when implemented.

Developing an emergency management plan also requires consideration of the threats and hazards that might be faced by the practice. This process is known as vulnerability analysis (VA). Exhibit 11.3 illustrates the sequence of events needed to complete this portion of the planning process.

The following factors are particularly important:

- *Continuity of the facility*—Is the facility habitable and safe to be used by staff and patients? Are alternative plans in place for having facilities available to the practice to see patients and conduct the work of the practice?

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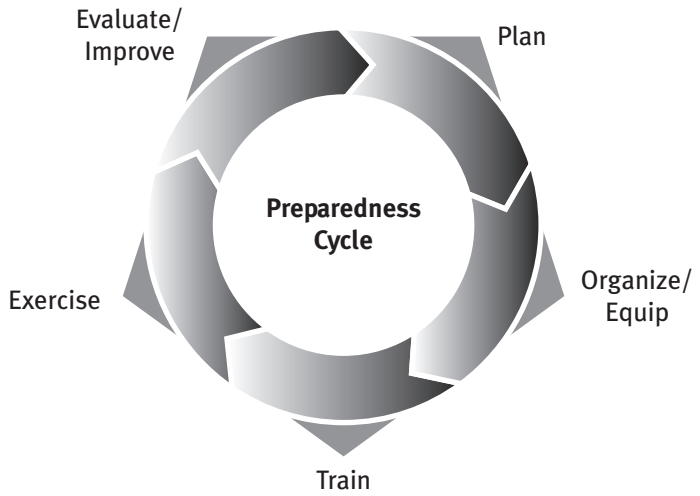


Exhibit 11.2
Preparedness Cycle

Source: FEMA (2023c).

- *Continuity of communications*—Are mechanisms in place to communicate with all stakeholders? For example, for your particular practice, should you reach your constituents using social media, e-mail, telephone trees, emergency communications over television or radio broadcast stations, or some combination of these? Should you deploy a special website or post an update on the home page or social media that provides a status report on the practice that can be accessed by stakeholders? In large-scale disasters, electronic services may be severely curtailed or overwhelmed, so multiple communication strategies should be considered.
- *Essential record-keeping*—What records are essential to see you through this situation, and how are the records safeguarded? Patients being treated under emergencies require documentation of that treatment not only for future care but for liability purposes as well.
- *Human resources*—What is your practice doing to safeguard staff? To what extent, if any, are they expected to work in an emergency scenario? Are special human resource policies in place regarding pay and other forms of support? If not, should such support be considered? If the practice were unable to operate over an extended period, would any or all staff be laid off, or would they be maintained to help in the recovery phase?

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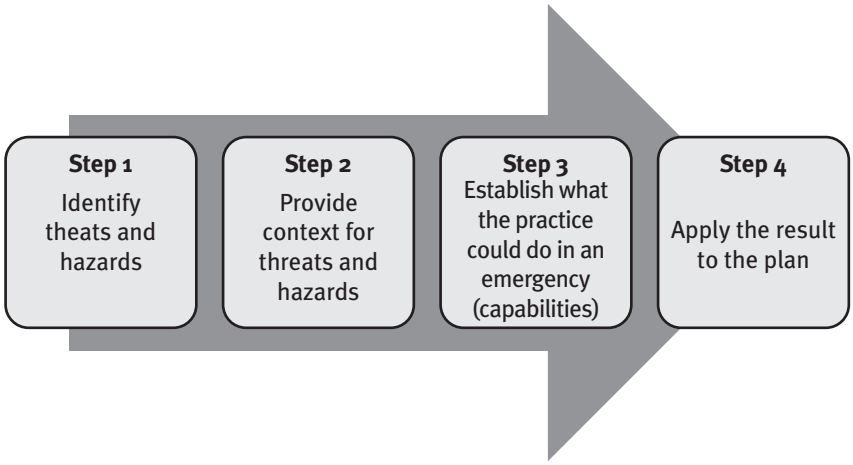
Exhibit 11.3
Threat and Hazard Identification and Risk Assessment (THIRA)

THIRA helps practices identify capability targets and resource requirements necessary to address anticipated and unanticipated risks. Specifically, conducting a THIRA can help your practice determine the following:

- What does the practice need to prepare for?
- What resources are required in order to be prepared?
- What actions could be employed to lessen or eliminate the threat or hazard?
- What impacts need to be incorporated into the practice's recovery preparedness planning?

The THIRA Process

The THIRA process consists of the following four basic steps:



Step 1: The first step is to develop a list of practice-specific threats and hazards based on past experience, forecasting, expert judgement, and available resources.

Step 2: The second step is to add context descriptions to each identified threat and hazard that

- outline the conditions under which a threat or hazard might occur and
- clarify how the timing and location of an incident affect the practice's ability to manage it.

Step 3: The third step is to establish capability targets for each core capability. Capability targets define success and describe what the practice wants to achieve for each core capability. This step looks at

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- impacts and desired outcomes and how they support development of capability targets,
- guidance on how to develop capability targets, and
- examples of completed capability targets.

Step 4: In step 4, communities apply the results of the THIRA by estimating the resources required to meet capability targets. Communities express resource requirements as a list of resources needed to successfully manage their threats and hazards. It covers the following:

- Capability estimation
- Resource typing, including National Incident Management System–type resources and other standardized resource types
- How to build a completed resource requirement list
- How communities may apply these results to resource allocation decisions and mitigation activities

Exhibit 11.3
Threat and Hazard Identification and Risk Assessment (THIRA) *(continued)*

The practice must consider its exercise methodology and how it will bring about the training needed to effectively respond to an emergency. Some of those considerations are shown in exhibit 11.4.

Once the exercise plan is developed, practice managers and leaders must determine how the plan will be implemented. Exercises that the practice can undertake are available in numerous formats. Exhibit 11.5 illustrates some commonly used discussion-based and operationally based exercises for improving response skills as well as the understanding of the emergency plan.

Who Is an Emergency Manager?

Depending on the size of the practice, the emergency planner for the practice may be the practice manager or administrator or another staff member with an interest in assuming this role. Although designating an emergency planner is important, disaster preparedness should be everyone's job in the practice. Many organizations offer training and information for emergency managers at all levels of expertise, from novice to expert. Currently, many of these organizations are governmental, as protecting residents has historically been a primary function of government. Online documents, templates, and information are often the most useful because emergency preparedness and management is a rapidly evolving field with new information developed on a continuous

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Exhibit 11.4
Emergency Preparedness Exercise Methodology

The Homeland Security Exercise and Evaluation Program (HSEEP) provides a standardized methodology for planning and conducting individual exercises. The process includes four phases:

1. Exercise design and development
2. Exercise conduct
3. Exercise evaluation
4. Improvement planning

Do you have preparations for:

- Determining long-term training and exercise goals and objectives for your practice?
- Creating a multiyear training and exercise plan?
- Identifying members of a planning team?
- Designing and developing training and exercises to achieve your identified goals and objectives?
- Conducting the training and exercises developed by your planning team?
- Evaluating your training and exercises, including development of After Action Reflection?
- Translating lessons learned into measurable steps for improving your practice's response capabilities?
- Assigning responsibility and setting timelines for implementing improvements, and tracking their completion?
- Sharing with others the lessons learned from training and exercising?

Source: Adapted from US Department of Homeland Security (2020).

basis, rendering other media less useful. The following are useful websites for emergency management resources:

- Centers for Disease Control and Prevention (CDC)
  - Emergency Preparedness and Response: http://emergency.cdc.gov
  - Resources for Emergency Health Professionals: http://emergency.cdc.gov/health-professionals.asp
  - Preparedness and Planning: http://emergency.cdc.gov/planning
  - Bioterrorism: http://emergency.cdc.gov/bioterrorism

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Exhibit 11.5
Types of Emergency Preparedness Exercises

Exercises fall within two broad categories:

Discussion-Based Exercises
Discussion-based exercises center on participant discussion. They familiarize participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures.

Type	Description
Seminar	A seminar is an informal discussion, designed to orient participants to new or updated plans, policies, or procedures (e.g., a seminar to review a new evacuation standard operating procedure).
Workshop	A workshop resembles a seminar but is employed to build specific products, such as a draft plan or policy (e.g., a training and exercise plan workshop is used to develop a multiyear training and exercise plan).
Tabletop exercise	A tabletop exercise involves key personnel discussing simulated scenarios in an informal setting. Tabletops can be used to assess plans, policies, and procedures.
Game	A game is a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation.

Operations-Based Exercises
Operations-based exercises focus on action-oriented activities such as deployment of resources and personnel and are more complex than discussion-based types. They are used to validate plans, policies, agreements, and procedures; clarify roles and responsibilities; and identify resource gaps in a practice environment.

Type	Description
Drill	A drill is a coordinated, supervised activity usually employed to test a single, specific operation or function within the practice.
Functional exercise	A functional exercise examines and/or validates the coordination, command, and control between the practice and other community partners (e.g., hospital, police, fire department, health department). A functional exercise does not involve any "boots on the ground" (e.g., first responders or emergency officials responding to an incident in real time).
Full-scale exercise	A full-scale exercise is a multiorganizational exercise, involving a "boots on the ground" response (e.g., firefighters, EMS, police, health department, hospital).

Source: Adapted from FEMA (2023a).

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- US Department of Homeland Security: http://ready.gov
- American Red Cross: www.redcross.org/get-help/prepare-for-emergencies/workplaces-and-organizations

One of the most important aspects of emergency management is keeping preparedness at top of mind in all areas of the practice. Often, medical practices prepare for but then forget about emergency issues, and that learning soon dissipates. The effective emergency manager provides regular updates, training, and information, keeping emergency management on the minds of everyone in the practice.

Community Emergency Response Teams

The Community Emergency Response Team (CERT) program, administered by FEMA, educates individuals about disaster preparedness for hazards that may affect their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. The training is conducted both in the classroom and using exercises. Becoming familiar with the local CERT can be a proactive way to learn about EP/EM, and it also provides a means to connect with the community that may be beneficial in an emergency or disaster situation (FEMA 2022a).

Special Situations

In this section, we discuss specific disaster and emergency scenarios that have emerged or become increasingly common in recent years. These scenarios include terrorism, cybersecurity threats, pandemics, the opioid crisis, and climate change.

Terrorism

Just in the past several decades, the likelihood of terrorism affecting medical practices in the United States has shifted from improbable to possible and has emerged as an issue that needs to be addressed. Practices must consider their role in responding to terrorism situations, from a medical care perspective as well as a management function for the practice itself. Much of this response depends on the nature of the practice, whether it is part of a larger organization or an independent practice, where it is located (e.g., urban or rural area), and whether the practice is located near other potential targets of terrorist groups.

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A Theoretical Example

Your practice is part of a large integrated delivery system, and you live in a region of the country that has nuclear power plants. More than 2 million residents live within a 10-mile radius of these facilities. Without warning, a nuclear accident occurs as a result of a suspected terrorist act. Significant amounts of radioactive iodine are released, which requires the population to receive iodine pills to mitigate potential illness. What role does your practice play in this response?

Ideally, this possibility has been considered in the health system's VA and in the practice's preparation of the emergency management plan. If the role of the practice has been defined in the context of the larger integrated delivery system, the practice's emergency management plan might include helping in the distribution of iodine pills and serving as a repository for this medication.

Although medical practices are traditionally set up to treat patients primarily in nonemergency situations, the practice should consider what assets it has that can be used in an emergency. Medical supplies, space for treatment, and medical personnel are some examples of assets that the practice could bring to any disaster or emergency (CDC 2022b).

Bioterrorism

Bioterrorism is one clear emergency situation in which the medical practice can assist the community. According to the Centers for Disease Control and Prevention (CDC), bioterrorism potentially involves three primary agent categories, designated as A, B, and C (CDC 2020).

Category A

These high-priority agents include organisms or toxins that pose the highest risk to the public and national security because of the following traits:

- They can be easily spread or transmitted from person to person.
- They result in high death rates and have the potential for major public health impact.
- They might cause public panic and social disruption.
- They require special action for public health preparedness.

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Category B

These agents are the second highest priority because they pose the following types of concerns:

- They are moderately easy to spread.
- They result in moderate illness rates and low death rates.
- They require specific enhancements of the CDC's laboratory capacity and enhanced disease monitoring.

Category C

These third highest priority agents include emerging pathogens that could be engineered for mass spread in the future. Their common characteristics include the following:

- They are easily available.
- They are easily produced and spread.
- They have potential for high morbidity and mortality rates and major health impact.

When establishing processes for responding to acts of bioterrorism, the practice manager and leader must consider and plan for all these possibilities.

Cybersecurity Threats

Security breaches are becoming all too common, and increasingly costly. The number of security breaches affecting healthcare organizations peaked in 2020 amid the COVID-19 pandemic, with nearly 400 incidents (Landi 2022). In the first half of 2023 alone, the healthcare sector experienced nearly 300 data breaches affecting 39 million individuals (McKeon 2023). The motives behind these attempts at data theft were primarily financial or related to espionage.

Cyber criminals have discovered that medical practices and other health-related facilities are rich sources of personal information that can be used for identity theft or, in rare cases, blackmail. These criminals have also learned that medical practices may be easy targets (Kaplan 2016). The medical practice has an obligation to protect patients' private health information as well as the integrity of the practice and its financial well-being.

Consider some of the recent attacks on large and sophisticated organizations in the healthcare field: 94 percent of medical institutions report being the victim of a cyberattack,

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and 72 percent of providers have reported malicious traffic. The primary reason these incursions are becoming more prevalent is that nearly all software applications are now connected to the internet (Filkins 2014). US healthcare entities suffered an average of 1,410 weekly cyberattacks per organization, up 86 percent compared with 2021. In 2023, the major issues of concern were Internet of Things attacks (e.g., IV pumps), third-party vendors, and cloud breaches (Phillips 2023).

Common Cyber Risks

Some emerging and long-standing cybersecurity risks include the following:

- *Phishing attacks* are typically disguised as e-mails from what appears to be a trusted party asking the receiver to click on a link and enter personal information, which then gives the perpetrator access to the accounts or information systems of the practice.
- *Trojans and malware* are special software programs (*malware* is malicious software) designed to allow the hacker to access information in systems on the infected computer and the networks to which they are connected.
- *Ransomware and advertising scams* are special programs that, if downloaded by the user of the computer system, cause the computer to be infected by one or more viruses. In the case of ransomware, the data in the system become unavailable to the practice until a ransom is paid to the hacker, when a code is provided to unlock the data. Recent cases have shown these attacks to be a real and growing threat (MGMA 2017; Pot 2016).
- *Password theft* occurs when an individual simply steals the password of a person who has access to the practice's systems.
- *Third-party access breaches* occur through the systems of vendors and other parties that frequently deal with the practice, allowing hackers to obtain access and steal data or infect computers with malware.

Responsibilities of the Practice in the Face of a Cyberattack

As with other risk management strategies, the first step is to assess the vulnerability of the practice. Some organizations periodically send staff phishing e-mails to test their knowledge and impulse control, for example.

Following that analysis, one of the most important steps the practice can take is to establish clear procedures and policies on the use of all electronic communication devices

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in the practice. Extensive and comprehensive training of all staff members is necessary on these policies and procedures, including the following:

- Proper access of information
- Password security
- Appropriate management and surveillance of security policies

The practice also needs to have appropriate electronic safeguards in place in the form of firewalls, web and e-mail encryption, and malware protection. An informative introduction to IT security guidelines has been published by the US Department of Homeland Security's Cybersecurity Working Group of the Healthcare and Public Health Sector (2017).

Data breaches often occur despite the best efforts of organizations to prevent them. Depending on the practice's ability to deal with such events, it may consider purchasing cyber insurance, which provides assistance and compensation in the aftermath of damage produced by a cyberattack.

Pandemics

Pandemics are widespread occurrences of infectious diseases affecting large populations or regions. The possibility of a pandemic in modern times may have seemed remote to many people until just a few years ago; however, the onset of the COVID-19 pandemic in late 2019 drove home the tremendous threat posed by infectious diseases. What is the role of the medical practice in addressing potential or actual pandemics?

Although the answer varies significantly depending on the location and type of organization, at a minimum, the practice needs to be prepared to deal with significant numbers of patients who are affected by a pandemic flu or other infectious disease like COVID-19. Protection of the staff and patients is of utmost concern. FEMA offers an excellent guide to adapting care standards under pandemic circumstances (FEMA 2022c).

The practice may also have the opportunity to cooperate with local community hospitals and health departments as part of the National Incident Management System, which guides governments at all levels, as well as nongovernmental organizations and the private sector, to work together to prevent, protect against, mitigate, respond to, and recover from incidents (FEMA 2023b; Hewitt et al. 2015). Such partnerships bring governmental and nongovernmental organizations and agencies together to manage disasters and emergencies, thereby bringing the whole community together.

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Preparing for the Next Pandemic

Physicians, medical leaders, and medical organizations must be strong advocates for science in order to prepare for future pandemics and support the political processes that encourage preparedness. Government is the only effective way to address widespread public health crises like pandemics. Those who work in medical practices can make a difference.

Public health researcher Devi Sridhar (2022) recommends several critical steps to address and prepare for the next pandemic. Practice leaders can align their practices with these recommendations and support government efforts to strengthen preparedness.

- *Monitor zoonoses*. A zoonosis is a disease or infection that is naturally transmissible from vertebrate animals to humans. There are more than 200 known types of zoonoses; recent ones include Ebola, MERS, SARS, Zika, and COVID-19. Zoonoses make up a large percentage of new and existing diseases in humans. As we saw with COVID-19, these infections can jump from animals to humans and spur pandemics (WHO 2020). It is crucial for physicians to be aware of new diseases coming into the practice and take an active part in disease surveillance.
- *Sequence globally*. Practices must support the development of more robust systems for sequencing new diseases to speed up effective treatments and vaccines.
- *Strengthen manufacturing*. The private sector medical community must encourage governments to allow for more widespread manufacturing of vaccines and other treatments, as these diseases are global in nature. In this way, we will be better prepared to address novel threats.
- *Stop the spread*. The spread of a virus or disease is not inevitable. However, it takes political will and preparedness to response quickly and decisively in a crisis. Medical practices and healthcare organizations can help support such efforts.

The COVID-19 pandemic exposed a number of national vulnerabilities in our nation's health security and healthcare system. We were unprepared for a deadly pathogen that crossed borders quickly, killing large numbers of people. Even sourcing simple supply items such as face masks became a challenge. We must do a better job of preparing for the next inevitable health emergency (Emanuel et al. 2022).

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A Pandemic Tabletop Exercise

One way to address the possibility of another pandemic and how the practice might respond to it is to conduct a tabletop exercise. The scenario is the development of a flu pandemic in the region served by the practice.

First, the facilitator should provide a space that allows the group to work together on the exercise. If the group is too large, multiple groups may be created. Groups should not exceed seven people. The facilitator also provides flipcharts and markers or other means to record the activities of the groups.

Second, the facilitator gives each group a series of progressive events related to the pandemic, described in stages, and asks the groups to discuss and document how the practice would respond in this situation. They are given a ten-minute time limit for each phase and are instructed to be prepared to share their conclusions with the facilitator and other groups.

- Stage I: Reports have been received that the number of cases of a novel strain of flu is on the rise.
- Stage II: The practice has begun to see a number of patients infected with this flu strain.
- Stage III: The practice is receiving so many phone calls and visits from patients infected with this novel strain of flu that it cannot treat all the patients. This unmanageable volume is exacerbated by the fact that many members of the practice staff are also ill.

Some findings from participating groups might include the following:

- Maintain proficiency in addressing a possible pandemic. Do not start cutting corners in safety or quality in an effort to see all the patients who present to the practice. This can be a chaotic time in the practice, so a plan for the surge in patients and how it will be managed is required. Many primary practices get a sense of this issue with outbreaks of the flu.
- Take measures to help maintain the health and safety of staff by enacting heightened infection control protocols and enabling use of personal protective equipment. Accidents like needle sticks and exposure to pathogens can more easily occur in a frantic environment than in a normal daily routine, so order and calm need to be maintained, which can only be achieved with preparedness training.
- If a known threat exists, establish a protocol for screening, such as asking standard questions about travel, contacts, and location of residence as appropriate.

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- Remain alert for unusual clusters or unusual patterns of illness, especially when a threat is known or possible. For example, during the Ebola outbreak of 2014, practices began to ask patients with possible Ebola symptoms about their travel history (CDC 2022c).
- Establish a diagnosis to determine not only the appropriate prompt treatment for the patient but whether they represent an early warning sign of a larger threat.
- Alert the proper authorities, such as the local and state health departments. In some cases, the CDC may also be involved.
- Assist in the transport of patients as necessary to other facilities, such as a hospital that may be a more appropriate place for the care of the patient.
- Assist in the epidemiologic investigation. Government health agencies, such as the CDC and federal and state health departments, rely on the input from providers in the community to help assess the nature and extent of disease outbreaks by reporting the number of cases of the illness under surveillance.

In this simplified example of a tabletop exercise, we see that the progression of a pandemic can quickly become a difficult situation for the practice to handle. What do you do as the manager or leaders of the practice? What plans have been made? What resources can you call on to support your patient volume? Solutions to all these questions and more should be contained in the preparedness plan adopted by the practice, thereby allowing the practice to address an escalating event such as a flu pandemic in a timely and effective way.

The Opioid Crisis

The "opioid crisis" refers to the rapid increase in the use of prescription and nonprescription opioid drugs, such as hydrocodone, oxycodone, and, most notably, fentanyl, with serious public health consequences. Deaths from overdoses of opioid drugs have skyrocketed in recent years. In 2023, the Commonwealth Fund reported that more than 79,000 Americans died from drug overdoses between January and September 2022—a slight decline from the 81,000 people who died during the first nine months of 2021, but still 50 percent higher than pre-2020 levels. The increase has been attributed to the consequences of the COVID-19 pandemic as well as the increasing amounts of fentanyl being brought illegally into the United States (Baumgartner and Radley 2023).

Although some might argue that the opioid crisis is not really a practice management issue, overprescribing of opioid drugs is often cited as a contributing factor, along with fraudulent marketing of opioid products and illegal street drug use (Adams, Bledsoe, and

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Armstrong 2016; Meldrum 2016; Morone and Weiner 2013; Throckmorton, Gottlieb, and Woodcock 2018).

Physicians and practice leaders can become better educated and informed about treating addiction, which is difficult to address. Patients who experience addiction often experience judgment and shaming, which does not help recovery. Medical practices should consider the following actions (Bonnelle et al. 2022; CMS 2020; Dowell, Haegerich, and Chou 2016; Friedmann, Andrews, and Humphreys 2017; Jones et al. 2018; Manchikanti et al. 2018; Mojtabai et al. 2019; Volkow et al. 2018):

1. *Safe prescribing practices*. Physicians should follow guidelines for appropriate opioid prescribing, including assessing a patient's risk for addiction, starting with the lowest effective dose, and regularly reassessing the need for ongoing opioid therapy. Additionally, physicians should consider nonopioid alternatives and nonpharmacologic approaches to pain management.
2. *Screening and intervention for opioid use disorder*. Physicians can screen patients for opioid use disorder and intervene early to provide evidence-based treatment, such as medication-assisted treatment. This includes prescribing medications like buprenorphine, methadone, and naltrexone, which can help reduce cravings and withdrawal symptoms and improve outcomes for patients.
3. *Patient education*. Physicians can educate patients and their families about the risks associated with opioid use, safe storage and disposal of opioids, and the signs and symptoms of opioid misuse, addiction, and overdose.
4. *Collaborative care*. Physicians can work collaboratively with other healthcare providers, such as addiction specialists, social workers, and mental health professionals, to provide coordinated care for patients with opioid use disorder and other substance use disorders.
5. *Advocacy and policy change.* Physicians can advocate for policy changes at the local, state, and national levels to improve access to evidence-based treatment for opioid use disorder and to address the root causes of the opioid crisis, such as overprescribing, the illegal drug trade, and social determinants of health.

Climate Change

Climate change poses a number of threats to the health and well-being of people worldwide. Climate change is affecting our food supply, our air, our water, and our physical

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infrastructure. Indeed, the World Health Organization has identified climate change as the greatest threat to global health in the twenty-first century (WHO 2015).

Climate change affects human health in two main ways that are important for the medical practice to appreciate:

1. By increasing the seriousness and frequency of health problems that people already face
2. By creating new or unanticipated health issues in people and in places where they have not been before

One way in which climate change is having an impact on people's health right now is by facilitating the spread of pests and infectious diseases. An example is Lyme disease, a tick-borne bacterial illness that causes a wide range of symptoms such as fatigue, joint pain, and skin rash and can become debilitating if not treated quickly. Rising temperatures are expanding the range of ticks' habitat and increasing the time when ticks are active. Among the US states where Lyme disease is most common and where cases have been tracked consistently since 1991, Maine and Vermont have experienced the largest increases in reported cases, followed by New Hampshire (CDC 2022a). On average, Maine and Vermont report more than 100 additional cases per 100,000 people compared with 1991; New Hampshire's rate has increased by 87 cases per 100,000 (see exhibit 11.6).

Practices must be aware of how diseases that were once uncommon are affecting their patient population. Misdiagnosis is a concern as constant vigilance is necessary to treat emerging illnesses (Baylor Medical College 2023; Haddad et al. 2021).

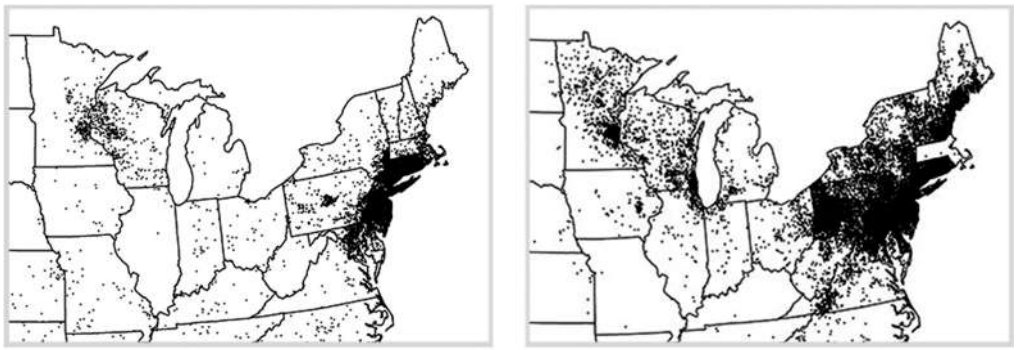


Exhibit 11.6
Reported Cases of Lyme Disease, 1996 and 2018

Source: CDC (2021).

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Collaborative Emergency Management

In any significant emergency or disaster situation, no single entity will likely be able to manage the needs of the entire community. Medical practices, whether freestanding or a part of a large healthcare system, are often called on to assist in these difficult situations. The manager and leaders must acknowledge the practice's expected level of involvement in community emergencies and prepare for the possibility of being asked to assist in a crisis.

Potential issues that might involve the medical practice in an emergency or disaster situation include a pandemic, such as influenza or new variants of COVID-19, or other contagious diseases, such as the Zika virus, Ebola, or the so-called bird flu (H5N1) (CDC 2022d; Kaiser Family Foundation 2014). A critical point regarding the evolution of new disease threats is the need to keep clinical personnel updated on the proper methods of surveillance, diagnosis, and treatment. The practice should regularly seek out and incorporate new information about possible disease threats as part of the emergency preparedness plan review and revision process.

The ultimate aim of these considerations is for the medical practice to become an integral part of the overall community response to an emergency. How that effort is organized and who is in charge of it varies from community to community, but the minimum expectation is that the medical practice will be involved on some level.

FEMA (2022b) and the CDC assist in developing plans for continuity of operations in times of pandemics or disasters. These resources are logical starting points for medical practices as they prepare their emergency and preparedness plans.

This chapter has provided only a glimpse at some of the important elements of emergency management and preparedness. The practice manager in this new era must continue to seek new information and education and to develop effective plans for the practice and the communities it serves.

Discussion Questions

1. Outline and discuss the steps in creating an emergency preparedness plan for the practice.
2. Describe the types of exercises that can be used to prepare for an emergency.
3. What is the all-hazards approach to emergency planning?
4. Outline and discuss the steps of the preparedness cycle.
5. Identify the important entities in your community for emergency management education and outreach.
6. How is climate change affecting human health and medical practice?
7. What actions can practices take to address the opioid crisis?

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CHAPTER 12

THE FUTURE AND MEDICAL PRACTICE INNOVATION

Knowing is not enough; we must apply. Willing is not enough; we must do.

—Johann Wolfgang von Goethe

Learning Objectives

- Describe the anticipated changes that medicine will experience in the future.
- Understand the significance of data analysis and Big Data.
- Appreciate the nature and expectations of precision medicine.
- Understand the importance to the medical practice of shifting focus from volume-based reimbursement to value-based reimbursement.
- Delve into the role of the practice manager in guiding and leading the medical practice of the future.

Introduction

In the future, as we assume more responsibility for outcomes and as pay-for-volume systems fade away, medical practice revenue will become its cost. That statement might not make sense until you consider that in a value-based world, reimbursement will be fixed

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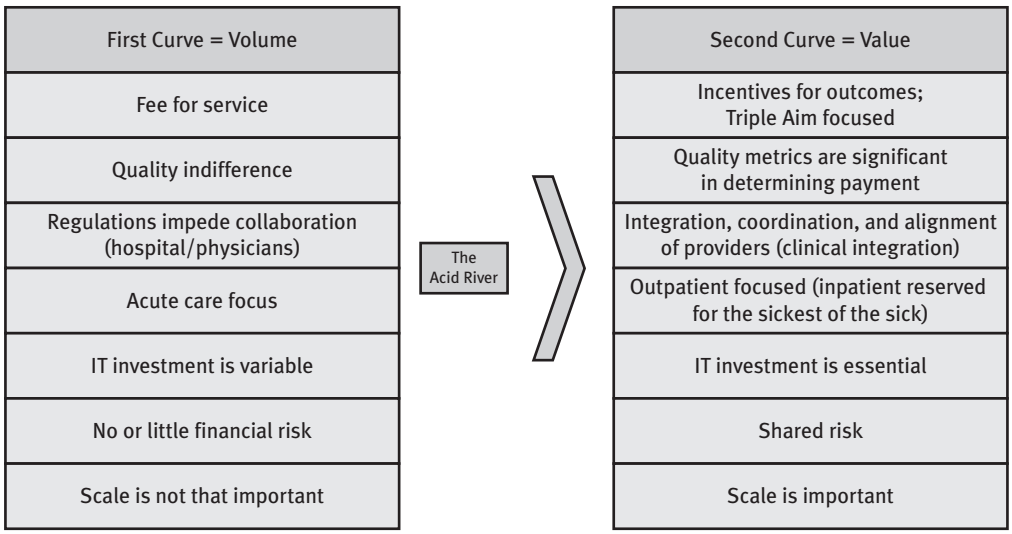
and whenever a procedure, such as a lab test, is performed, the practice will pay that cost. Currently, that cost is revenue to the practice.

The Gordian knot has long been a metaphor for an unsolvable problem, but this is a problem that does have a simple solution—if the solver is an innovative thinker. The known cannot be untangled, but it can be cut. We must start to think about what the future should look like for the medical practice; it will be much different from what we see today.

The only way the US healthcare system will achieve a sufficient level of reform is to abandon the philosophy of incrementalism and attack the root cause of the system's failures. This movement will require innovation and a new mindset, particularly new ways of thinking about the problems of healthcare delivery. Healthcare in the future will see a significant increase in self-care and collaborative care, and it will require practitioners to provide creative avenues for patients to access services and information. As we discuss in this chapter, behavioral economics adds a new dimension to healthcare by helping medical practices devise ways to help people make changes in their lifestyle and behaviors to produce health outcomes. Exhibit 12.1 illustrates the shifts that need to occur for the transition from today's volume-based system to a value-based system to take place.

In the exhibit, the term *acid river* comes from a team exercise in which a group must build a bridge across an imaginary river of acid (St. John 2017). The team's goal is to see that all members get across the acid river safely. This task is difficult because the materials (resources) for building the bridge are limited; in fact, the bridge must be built by repeatedly removing and replacing segments and experimenting (innovating) to determine which approach will work. It also requires continuous monitoring of the team's status and progress.

EXHIBIT 12.1
Volume-to-Value Shifts



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This effort sounds a lot like the task of moving the medical practice from a first-curve, volume-based system to a second-curve, value-based system (see chapter 1 for a discussion of first- and second-curve transformation).

Another fundamental issue facing the modern medical practice is getting universal adoption of necessary changes. Dr. Everett Rogers (2003) studied and wrote extensively about the types of adopters and the stages of adoption. As illustrated in exhibit 12.2, the rate of change in any system is related to the rate of adoption by the different groups of stakeholders. Some will never adopt change, as the graph illustrates, and will not challenge the old paradigm (the way we think about how things should be and have been). In fact, those who will never adopt the new ways often hinder adoption by actively working against change (Rogers 2003).

Rogers noted that the vast majority of people wait until they gain more knowledge by observing the early adopters. The late adopters require even more evidence and convincing that the new paradigm is the proper way to go. The implications for practice management are significant: If adoption is spread over too long a period, the practice must operate

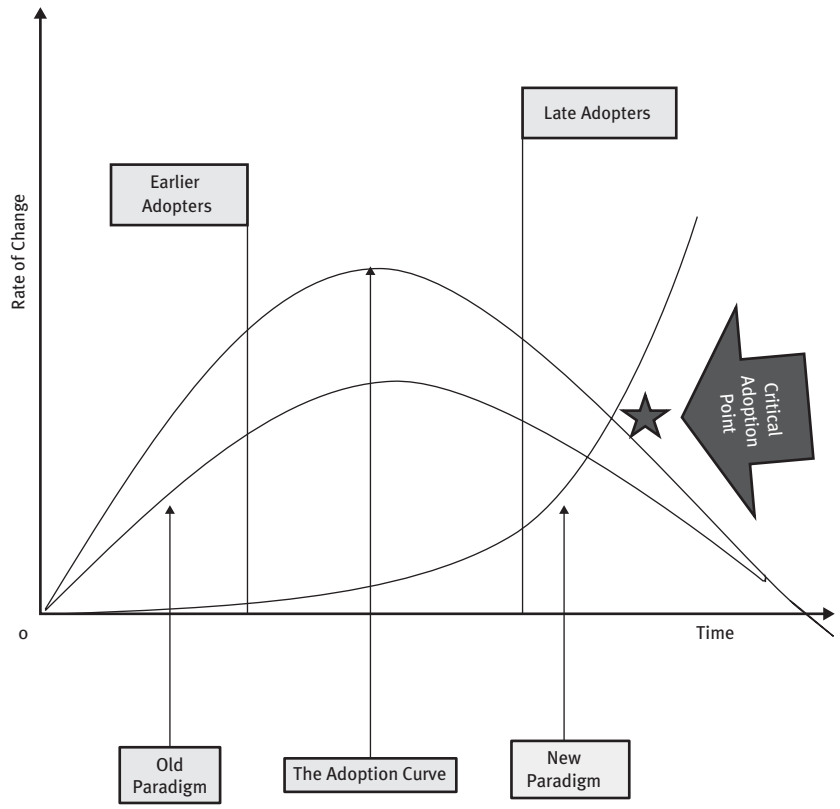


Exhibit 12.2
The Second Curve and the Adoption of Innovation

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multiple systems to keep the practice running, thereby increasing cost, adding complexity, and reducing practice effectiveness.

We know that change is difficult and that adoption takes a long time for administrative and clinical functions—but just how long? Empirical evidence on the adoption of clinical innovation has shown that discoveries can take as long as 17 years to be adopted in mainstream medical practice (Morris, Wooding, and Grant 2011). Exhibit 12.3 captures the layers of activity involved in this significant issue.

Clearly, 17 years is much too long in today's rapidly changing world to translate theory to practical application—the window of effectiveness for the discovery may well have passed by the time it is adopted. Thus, a crucial role for practice leaders is to guide the members of the practice to appreciate the new realities of the value-based future. Practice members must be nimble and move quickly to embrace ideas and methods once they are proven to be effective.

Merely encouraging adoption may be inadequate to effect change, however; the lack of will to adjust is just one factor. The sheer amount of new information created regarding the practice of medicine and in healthcare systems and management practices is increasingly difficult to absorb. At the time of this writing, ClinicalTrials.gov listed 457,898 studies with locations in all 50 states and in 221 countries. As of March 2021, ClinicalTrials.gov was receiving about 4.5 million visitors monthly (National Library of Medicine 2023). However, just a small fraction of this information can be processed in a way that helps the practitioner incorporate it into their practice (Bastian, Glasziou, and Chalmers 2010).

Exhibit 12.3
Discovery to Practice



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That said, developments in technology are expected to enhance the practice of medicine by helping manage the volume of information that is available.

Forces of Change

The future direction of healthcare is governed by many forces. They include current political discussions surrounding healthcare reform as well as prevailing concerns about access, quality, and cost (discussed in chapter 1). Unprecedented changes are also taking place in private infrastructure and societal values, and they all influence medical practices and practice management.

Many of the compelling forces of change have been discussed elsewhere in this text. Here, as we consider the future delivery of healthcare by the medical practice, we emphasize a few of the most potent drivers faced by medical practices—those that are likely to have the greatest impact on the way the US healthcare system and the medical practice function in the future. Later in this chapter, we discuss some implications for medical practices in terms of these forces and other considerations.

Demographic Forces

More than 10,000 baby boomers are turning 65 every day, and the aging US population is just one demographic factor that will shape the future of healthcare. We all are living longer as well. As people age, they usually need more healthcare services than younger individuals, so often the question is not whether they will need healthcare, but when, and this issue has significant implications for the amount and types of services practices will need to provide. Another factor is the increasing diversity of US society, which brings the need for a larger scope of services and cultural competency related to delivering healthcare

Cultural Forces

An increasingly diverse society has created the need for healthcare organizations to employ a culturally competent workforce. According to the US Census Bureau, 20 to 25 percent of US residents over age five speak a language other than English in the home (Dietrich and Hernandez 2022). To serve the members of all cultural groups at the highest level, medical practices should survey their patient populations to understand the languages and aspects of their cultural background that are important to them in medical office encounters. These surveys and broader community assessments are needed to engage patients in discussions of their needs, wants, and expectations.

Cultural competency in medical practice refers to the ability of healthcare professionals to understand, respect, and effectively communicate with patients from diverse

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cultural backgrounds. This is a crucial aspect of providing quality healthcare to all patients, regardless of their cultural, racial, or ethnic background (Jongen, McCalman, and Bainbridge 2018). In today's increasingly diverse society, cultural competency is essential for medical practitioners to provide equitable and culturally sensitive care. A lack of cultural competency can lead to miscommunication, misunderstandings, and mistrust between patients and healthcare providers, which can have a negative impact on patients' health outcomes and satisfaction.

To become culturally competent, medical practitioners should engage in ongoing education and self-reflection to increase their understanding of the cultural beliefs, values, and practices of their patients. This includes learning about different health beliefs, attitudes toward healthcare, and communication styles, as well as understanding how cultural differences can affect health behaviors and decision-making (Aysola et al. 2018).

In addition, medical practices should also strive to create a culturally inclusive environment for their patients. This can include providing interpretation services for patients who do not speak the same language as the healthcare provider, using culturally appropriate health education materials, and being mindful of the physical environment, such as using artwork and decor that reflects the diversity of the patient population (Kleinman and Benson 2006; Stonington and Holmes 2006).

Moreover, cultural competency should be the responsibility not only of individual healthcare providers, but also of healthcare organizations as a whole. This can be achieved by implementing cultural competency training programs for all employees, regularly reviewing and updating policies and procedures to ensure cultural sensitivity, and promoting diversity and inclusion at all levels of the organization (NIH 2021).

Cultural healing beliefs are the traditions, practices, and rituals that individuals from a specific cultural background use to promote physical, emotional, and spiritual well-being. These beliefs are often shaped by historical events, social customs, religious practices, and personal experiences, and they play an important role in shaping an individual's identity and worldview.

One example of cultural healing beliefs can be found in Traditional Chinese Medicine, which seeks to restore balance and harmony to the body by using a combination of acupuncture, herbal remedies, massage, and dietary therapy. This holistic approach views health as a result of the interplay between the individual, their environment, and the cosmos, and seeks to treat not only the symptoms of a condition, but its root causes as well (Jakovljevic et al. 2013).

Indigenous healing practices, such as those found in Native American cultures, are another example. These practices are often deeply rooted in spiritual beliefs and seek to restore balance and harmony to the individual by connecting them with the natural world. This may involve rituals such as sweat lodge ceremonies, drumming, and fasting, as well as the use of traditional medicines made from plants and other natural materials (Cohen 2006).

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Despite differences in approach and emphasis, all cultural healing beliefs share a common goal: to promote well-being and restore balance to the individual. Whether through the use of herbal remedies, spiritual rituals, or other practices, these beliefs provide individuals with a sense of connection to their cultural heritage, as well as a framework for understanding and navigating their own experiences of illness and wellness (Aysola et al. 2018; Doyle and Halverson 2022; Koithan and Farrell 2010; Szaflarski 2016).

Economic Forces

In the United States, nearly one in five dollars in the economy is spent on healthcare (CBS News 2019). Many observers believe the country cannot afford the cost anymore (Jost 2016). One battle being waged in this area is between the social justice approach and the market approach to healthcare provision. The social justice approach tends to favor government action and regulatory interventions for the social good, while market proponents favor letting the marketplace dictate outcomes. Whether a true market-based system of healthcare can be sustained in the United States is a continuing debate.

Technological Forces

Technological forces include the digitization of healthcare, not only medical records but healthcare delivery as well, and new medical technologies. In addition, the information available to people through the internet and other avenues has caused a shift in the way that patients consume healthcare. They ask more questions than ever before and often know much more about their condition than in the past. Some patients are becoming health literate, but, in a confounding turn, health literacy overall seems to be decreasing. Modern medicine and its related technologies offer much hope but also can give people a false sense of security. Ultimately, regardless of the advancement of tools and technologies, individuals' behaviors and habits are the primary causes of their health status, not the healthcare system (Resnik 2007), and in that respect, the future is not expected to be much different.

Political Forces

Political forces at play in the future of healthcare range from educational policies to immigration policies and beyond. However, the most prominent political discussion centers on healthcare reform. Americans remain divided over the Affordable Care Act (ACA), its future, and the role that government should play in healthcare delivery (Aaron 2015).

At the time of this writing, it remained to be seen what healthcare issues will arise during the 2024 presidential election cycle. Proposals for the future of the ACA range from a complete repeal and replacement to an expansion. The outcome is uncertain, as Congress

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continues to wrangle along party lines over all legislation, including healthcare; potential changes to entitlement programs such as Medicare and Medicaid are a recurring theme.

For many political stakeholders, the key issue is cost. Getting healthcare costs under control has been a goal for decades, yet costs continue to rise. Another primary issue is universal access. Inequality of both access to and knowledge about healthcare continues despite awareness initiatives aiming to stem it.

Geographic Forces

The distribution of services often hinges on geographic location. Residents of rural areas, regardless of socioeconomic status or level of knowledge about healthcare, face gaps in the availability of many services, an issue that influences the quality of care they receive (Radley and Schoen 2012).

Ecological and Other Environmental Forces

With viruses such as Ebola, Zika, and COVID-19 and its variants emerging and spreading as a result of globalization, additional health concerns are created that require responses from medical practices (Storrs 2016). Practice managers and leaders must ensure that their practices are equipped with the knowledge and materials needed to address these concerns.

In addition to new diseases, the increasing number of people living in harm's way of natural disasters affects healthcare in a major way. Consider the effects of Hurricane Katrina and Superstorm Sandy on the health of the affected populations as well as on the healthcare delivery system. For example, in the years since Katrina devastated the Gulf Coast, many New Orleans healthcare facilities remain shuttered; however, new facilities have opened with the hope of providing better care and, at the same time, being more prepared for future emergency events (CNN 2015; Rettner 2013; Rudowitz, Rowland, and Shartzer 2006).

Cost-Effectiveness Research

A fairly new methodology to improve the US healthcare system, known as cost-effectiveness research (CER), is beginning to drive change. This research evaluates the relative performance of different treatments and procedures for similar conditions and determines which approaches are most effective. CER encourages standardization in medicine and discourages overutilization. It accomplishes this aim by tapping into large databases from national sources and direct clinical trials to develop evidence-based information on the cost and effectiveness of procedures and treatments. This process is always an evidence-based comparison of different treatments (e.g., surgery versus medication) for the same condition or illness. The Agency for Healthcare Research and Quality (AHRQ 2022) conducts significant work in CER, and practice managers should become familiar with these efforts.

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Shifting Values and Beliefs

Finally, the values and beliefs of residents continue to be overarching factors that influence the US healthcare system, and these values and beliefs are changing. At one time, questioning the judgment of a physician was unthinkable, but now it is commonplace. People's attitudes about nutrition and alternative therapies have come to the forefront as individuals seek ways to improve self-care, with a greater focus on preventive measures. Lifestyle issues, which have always been major determinants of health, are now influencing the cost of care, becoming widely recognized as quality-of-life indicators. Many of the chronic diseases that plague US society are triggered by lifestyle excesses such as poor diet and lack of exercise, leading to diabetes, obesity, and hypertension.

The Lesson of the Affordable Care Act

The current rhetoric and political wrangling over the ACA is reminiscent of the period after Medicare legislation was passed in 1965. Many conversations with physicians and others in the 1970s—years after the program's implementation—yielded questions such as "What are we going to do about Medicare?" The impulse of some was to resist and advocate for revisions to the law. Throughout the 1980s and 1990s, many practices harbored deep-seated concerns about government involvement in healthcare.

But as we know today, some 50 years later, Medicare is a staple of the healthcare world: Many, if not most, healthcare organizations and practices that care for individuals aged 65 and older receive a significant portion of their revenue from Medicare. With that said, the time that Medicare was given to become an accepted and essential part of the healthcare landscape likely will not be afforded the ACA. Although the ACA's fate is not discussed as frequently today, it is still in question as of this writing. However, the larger context of this long-standing debate and the rancor in the political arena surrounding the ACA, and even thinking back on the aftermath of Medicare's passage, illustrate how important the political environment can be to the medical practice and why leaders and managers must understand and respond to the issues affecting the practice and its patients. Remember that approximately 50 percent of all healthcare dollars come from government entities at all levels, much of that from the federal government. Numerous occasions will arise in the future when legislative action affects the practice of medicine and the way that care is delivered and paid for.

The Promise of Community-Based Primary Care

The practice of medicine historically has been based on the biomedical model (Wade and Halligan 2004). As science has advanced and our understanding of disease has improved dramatically, the medical community is beginning to see that much more is involved in health and healthcare than the biomedical science of disease provides. Community-based

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primary care focuses on the unique needs of the populations providers serve, many of which have been underserved in the past. These practices give special attention to access and the barriers to access, such as transportation, cultural differences, and cost.

We live in a complex society, and many social issues pervade the healthcare system. Violent crime, abuse, addiction, and other social dysfunctions cost the US healthcare system billions of dollars each year. Furthermore, criminal justice, social services, and other elements of the social fabric have a tremendous impact on delivery of services. This tremendous expenditure does not include the substantial impact of crime on the victims beyond their medical care and social harm (McCollister, French, and Fang 2010).

For example, criminal behavior goes beyond inflicting physical injury. In 2020, the US Department of Justice estimated that as much as $100 billion is lost to medical fraud annually (DOJ 2020). Similarly, mental health issues continue to be a major concern. One study reported that the proportion of healthcare visits to address mental health concerns increased from 10.7 percent of visits in 2006–07 to 15.9 percent by 2016 and 2018 (Rotenstein, Edwards, and Landon 2023). Primary care practices are beginning to provide innovative solutions by embedding mental health services in the primary care environment (Sampson and Mueller 2017).

The "New Era" in Medical Education

Rapid advancements in technology and the shift toward a more patient-centered and evidence-based approach to medicine have ushered in what is referred to as a "new era" in medical education.

Medical students and healthcare professionals now have access to vast amounts of information, allowing them to stay up to date with the latest developments in their field. Medical education today emphasizes the evidence-based approach, in which medical students are taught to make decisions based on the best available evidence and to critically evaluate information (Jowell et al. 2023). Medical education is becoming also more patient-centered, as medical students are taught to consider the patient's perspective, understand their needs, and work with them to achieve optimal health outcomes. Medical education, like the practice of medicine, is becoming more interprofessional, with an emphasis on teamwork and collaboration between healthcare professionals from different disciplines (Mao et al. 2023; Nayak et al. 2023; Saad and Farrow 2019).

Future Workforce Challenges

The Nursing Profession

The roles of different types of providers in the medical practice are constantly changing. According to a report sponsored by the Robert Wood Johnson Foundation, the scope of

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nursing will increase to allow nurses to practice to the full extent of their training and licensure (IOM 2011). What will the impact be on the medical practice? One of the key findings of this report is that "nurses should be full partners, with physicians and other health professionals, in redesigning health care in the United States."

Nurses, doctors, and other highly trained healthcare professionals frequently perform jobs that do not require the practitioners' level of education. For example, physicians complete tasks that could be performed by physician assistants and advanced practice nurses, and nurses are doing the work of clerical and other clinical support staff. However, a big shift is occurring in which people who have highly specific professional skills are using those skills appropriately. Practice managers need to facilitate this shift by collecting and harnessing better data and information technology skills. We need to make sure practice members work as a team and divide the work on the basis of the scope of practice. For example, nurses can perform certain routine follow-up visits and blood pressure checks, and physician assistants can care for straightforward cases, while the physicians attend to those patients needing more involved care.

Of course, these changes face two significant barriers:

- Reluctance on the part of other caregivers to give up clinical responsibilities.
- Varied regulations and licensing processes as the result of state-level responsibility. The necessary regulatory changes to allow new modes of practice will progress differently in each state. Practice managers need to be aware of the licensing and regulatory practice limitations on nurses, physician assistants, and nurse practitioners in their practice.

Training in Geriatrics

Although primary care needs to be strengthened in general, one particular challenge to the workforce is training in geriatrics. The United States faces a critical shortage of geriatricians; by 2025, the number of people over age 65 will double, and approximately 27,000 certified geriatricians will be needed to serve that population (HRSA 2017). In 2023, just 7,123 certified geriatricians were working in the United States (American Geriatrics Society 2023).

What are the barriers to attracting geriatricians to the field? Geriatrics is a relatively new specialty, and it is not particularly glamorous or high paying. In addition, not enough training programs are currently available in geriatrics. According to findings published in the *Journal of the American Medical Association*, only 96 internal medicine or family practice residency graduates entered a geriatric fellowship in 2013 (Brotherton and Etzel 2014).

Practices may be able to increase their ability to care for geriatric patients by utilizing more nurse practitioners and other qualified healthcare professionals who are also receiving advanced training in geriatrics.

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Global Threats and International Cooperation

Natural disasters, industrial accidents, and other events occur daily. The nature of global travel contributes to the spread of infectious diseases, posing an additional concern (Pavia 2007). In 2020, the presence of the COVID-19 virus in the United States was devastating to the country, resulting in large numbers of infections and deaths. The pandemic caused major economic disruption and was overwhelming for healthcare professionals and the public alike. Almost any corner of the world can be reached within 24 hours. As the threat of infectious disease increases, so, too, does the antibiotic resistance of infectious agents, such as tuberculosis, posing greater threats to patients. However, antibiotic research lags the ability of infectious agents to become resistant. One reason is that pharmaceutical manufacturers do not garner the same return on investment from antibiotics as they do from other pharmaceuticals, such as those that treat chronic conditions and must be taken for long periods.

The lack of healthcare infrastructure in developing countries has had an influence on global health as well. Often, these resistant strains appear in underdeveloped parts of the world because those regions do not have the medicines available or patients do not take them correctly. Even if infected patients are administered an antibiotic, they may not receive enough to complete the treatment, they may sell part of it, or several people may use one prescription (Reardon 2014). Resistance increases as a result, and the patient has unwittingly helped the disease agent become less treatable. Patients in the United States are also contributing to the increased resistance by demanding antibiotics when the drugs will do little, if any, good. Practitioners are often reluctant to spend the time to counsel patients on why the antibiotic is unnecessary, due to time pressures and fear of alienating the patient. US patients have been culturally acclimated to expecting a quick pharmaceutical fix for their ailments.

Efforts are under way to address concerns about antibiotic resistance. The Transatlantic Task Force on Antimicrobial Resistance is focused on developing new antibiotics and other solutions to limit or halt the spread of antibiotic-resistant infections. Additional international health initiatives are being developed as well by the World Health Organization to implement new strategies, policies, and educational efforts to combat the issue of antibiotic resistance (WHO 2017). However, individual country sovereignty poses challenges to their efficacy because the regulations require agreement from leaders and health experts who hold many different cultural beliefs and values and diverse points of view. None of these international bodies can order any government to comply (CDC 2023b).

Why are these issues a concern for practice managers? Two important issues are relevant. First, awareness of global health issues is now a necessity, because a practice cannot anticipate when a patient with a disease or infection acquired thousands of miles away may present. As mentioned previously in this text, the practice often serves as the first line of treatment and surveillance for new medical hazards. Second, the practice must continually

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deliver care at the highest level and most current state of knowledge. To do so requires continuous learning and tuning in to the ever-changing medical landscape.

Advances in Imaging and Laboratory Testing

Until the 1960s, exploratory surgery was common; it was the only way available to see inside the body. Today, sophisticated imaging technologies reduce the need for invasive procedures. These technologies include the following:

- Ultrasound
- Magnetic resonance imaging
- Computed tomography
- Medical X-ray (including mammography)
- Fluoroscopy
- Positron emission tomography
- Tactile imaging
- Elastography
- Photoacoustic imaging
- Thermography
- Nuclear medicine

These and a host of other imaging technologies allow virtually every part of the body to be visualized structurally and chemically to make an accurate diagnosis. The number of laboratory tests available to the medical practice is increasing rapidly as well. More than 900 lab tests are commonly performed, which focus on approximately 600 diseases and conditions (Chernecky and Berger 2013). Many of these imaging and laboratory services may soon be provided by the medical practice and serve as a convenience for the patient and the medical staff as well as a source of revenue.

Evidence-Based Healthcare

Evidence-based healthcare requires the use of research and evidence to determine treatments that produce the best outcomes. This approach to care creates value by limiting variation and the misuse and overuse of procedures, which improves quality and reduces costs. This is

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another important area of healthcare administration and healthcare research because it offers the promise of effective, high-quality care at reduced cost. The AHRQ, the health services and policy research arm of the US Department of Health and Human Services, is leading the way in evidence-based research. A related branch of research, CER, is championed by the Patient-Centered Outcomes Research Institute (PCORI). The formation of PCORI was mandated by the ACA, which is slowly progressing in its mission (GPO 2010). CER activities include the following:

1. Identifying new and emerging clinical interventions
2. Synthesizing the information in more than 40,000 research studies published every year
3. Disseminating the information and tools created to assist the clinician and residents of the United States
4. Identifying the gaps between existing research and clinical practice

Governments and private payers, as well as patients, are emphasizing the adoption of evidence-based medical practices. Assisting in this effort are information technologists and high-tech firms developing computer-based models to provide practitioners with ready access to the most current information.

Clearly, a great deal of information is available now. The amount of medical information doubled between 2010 and 2014, and it is expected to double every 73 days in the future (Densen 2011). Because no human being can know all this information, tools are needed to help bring the latest care to patients. Artificial intelligence is being explored to help relieve physicians of the need to rely on rote knowledge, and efforts to incorporate this technology into medical training are being considered (Kundu 2021).

Keeping guidelines current and then incorporating the economic analysis into evidence-based care creates the cost-effectiveness component. We are beginning to see reimbursement restructured to reward the best achievable outcomes as part of the whole paying-for-value approach.

Data Analytics and Artificial Intelligence

It would be difficult to argue that the medical practice does not have a sufficient amount of data to manage and treat its patients. The problem is quite the opposite: Practices have more data than they can manage and use in an unstructured form. Until recently, converting unstructured data into usable and applicable information was extremely difficult. As exhibit 12.4 indicates, unstructured data are practically useless because they are almost impossible

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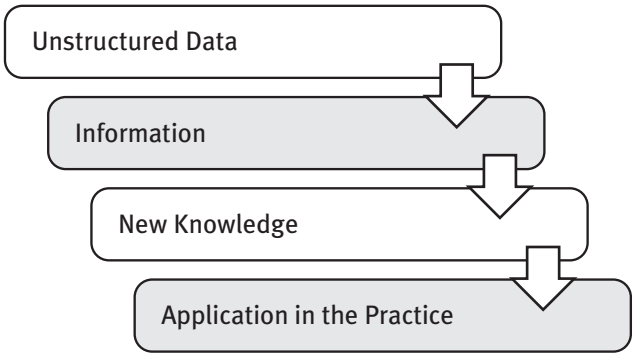


Exhibit 12.4
Transformation of Data to Application

to apply to the practice environment. First, the unstructured data must be collected, which helps create information that can be turned into new knowledge about patients and populations served. Only then can this information be put into action.

The ability to convert unstructured data into practicable information is a developing science. One example of the early progress in this field is IBM's supercomputer Watson. (Watson is one of several supercomputers that provide advanced data analytic solutions. HP, Dell EMC, and other companies are working in this field as well.) Watson mimics human intelligence by quickly iterating nuanced information provided by the user. For example, Watson can read the entirety of the existing medical literature in a matter of seconds, an impossible feat for any human being in their lifetime; turn the enormous mass of unstructured data into usable information that can respond to questions and problems; and understand nuances in human speech.

Watson and other artificial intelligence (AI) applications have the potential to greatly improve healthcare outcomes and efficiency. The following are some of the ways that AI can be used to assist healthcare practitioners:

- *Diagnosis*. AI algorithms can be trained to analyze patient symptoms, medical history, and test results to help diagnose illnesses more accurately and quickly (Mitchell et al. 2011; Pearson 2017).
- *Imaging analysis*. AI can be used to analyze medical imaging such as X-rays, CT scans, and MRI images to detect anomalies and assist in the diagnosis of conditions such as cancer and cardiovascular disease (Nsugbe 2023).
- *Predictive modeling*. AI can be used to predict patient outcomes, such as the likelihood of readmission or risk of complications, based on demographic, clinical, and behavioral data.

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- *Personalized medicine*. AI can analyze large amounts of patient data to determine the most effective treatment plan for an individual patient (Krittanawong et al. 2017), taking into account their unique medical history and genetic profile (Haug and Drazen 2023).
- *Drug discovery*. AI can assist in the discovery of new drugs by analyzing large amounts of data from preclinical and clinical trials (Amisha, Pathania, and Rathaur 2019).

Are practices prepared to use new AI technologies? Clearly, the use of AI can benefit patients and help medical practices manage the increasing complexity of care and the massive volumes of data being produced. Because AI technology is instantaneously updated for new developments and findings in the medical field, the practitioner never needs to be without the latest information.

Exhibit 12.5 illustrates how a provider might interact with an AI platform to assist in the treatment of a complex patient.

Although some observers believe that AI is the cure for many problems in the US healthcare system (Maney 2017), the use of AI in medical practice is not without controversy. While AI has a place in healthcare delivery, physicians have expressed concern about the lack of human intervention and the erosion of the doctor–patient relationship if care becomes too algorithmic. The concern rests on the importance of the human experience of care, not just the technology (Farr 2017). The integration of AI into the medical practice also raises important ethical and privacy concerns. For example, there is a risk of biased algorithms if the data used to train them are not diverse or representative, which could result in unequal treatment of different patient populations. Additionally, there is the risk that sensitive medical information could be disclosed or misused if privacy and security measures are not in place (Beam et al. 2023; Gilvary et al. 2019; Haug and Drazen 2023; Luxton 2014).

New on the AI scene is ChatGPT. Researchers are beginning to examine possible uses for this technology in medical practice. Some of the potential advantages of ChatGPT include the following:

- It produces formally structured text.
- It may have applications for medical education.
- It can be used to monitor and prompt follow-up for patients with risk factors.

However, there are also some serious concerns:

- It could infringe on copyright laws.
- There could be medico-legal complications.

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- It is presently unable to distinguish between a reliable and an unreliable source.
- Some of its references are irrelevant or do not exist.

It remains to be seen how this technology will evolve and be used by practices (Alkaissi and McFarlane 2023; Welborn 2023; Dave, Athaluri, and Singh 2023; van Dis et al. 2023).

Population Health

Why do some people have good health outcomes and others do not? What determines health, and what is the role of the medical practice in the health of an entire community? These are questions asked by those who study population health (Kindig and Stoddart 2003).

The US healthcare system has long encouraged patient dependence for all medical needs. Medical professionals used a separate language that most patients did not understand, the healthcare system was structured in a complex and confusing way, and at times providers neglected the basics of good health by focusing too much on a particular disease or event and not thinking about the overall long-term health and well-being of the patient. This last point is likely a by-product of a system that often focused on treatment of disease rather than wellness and prevention. Researchers and practitioners alike now realize that if the goal of the healthcare system is to improve health, every member of the population needs to be engaged and empowered to take steps in ensuring their own health. Simply stated, there will never be enough clinicians or money to provide for all the needs of the population and keep it healthy.

Providing excellent care for individual patients is no longer sufficient in the modern practice environment. Individual care is certainly still required, but, as made clear by the Triple Aim, the overarching goal is improved health for the entire population, and achieving that goal requires a different perspective on delivering care.

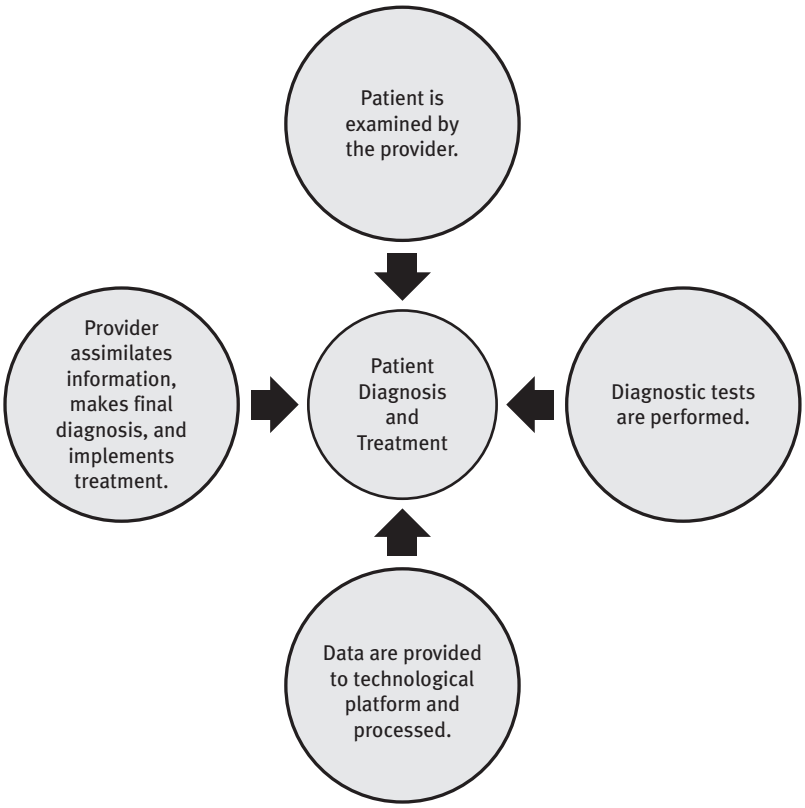
Population health has been defined a number of ways. It is commonly thought of as the health outcomes and health status of a group of individuals in a community or patient group. Leading expert David Kindig defines population health as "the aggregate health outcome of health-adjusted life expectancy (quantity and quality) of a group of individuals in an economic framework that balances the relative marginal returns from the multiple determinants of health" (Kindig and Stoddart 2003, 380).

A key to population health is data. Until recently, meaningful, actionable data have been missing from population health management. Performing optimally in population health management is difficult, if not impossible, without the use of powerful data analytical tools as previously discussed. Data facilitate understanding of the nature of the population's health needs and where scarce resources need to be allocated.

Medical practices play an irreplaceable role in population health and its management. Consider the volume of patients that a given practice encounters. As emphasized

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Exhibit 12.5
Technology-Assisted Diagnosis



throughout this text, the medical practice is usually the first point of contact for patients with the healthcare system, and therefore it serves as the linchpin in the health of the community, seeing that patients receive necessary treatment and, when appropriate, are referred to other resources. Additionally, physicians and other providers direct virtually all care for patients entering the healthcare system through the emergency department or other points in the hospital. The data supporting this notion are staggering (CDC 2023a; NCHS 2023):

- Number of physician office visits in 2019: 1 billion
- Number of physician office visits per 100 persons in 2019: 320.7
- Percentage of these visits that were made to primary care physicians: 50.3 percent
- Number of hospital inpatient discharges per year: 35.1 million

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- Discharges per 10,000 population: 1,139.6
- Average length of hospital stay in days: 4.8

The ratio of hospital admissions to office visits is 26.45 to 1, demonstrating the importance of the relationships developed in the physician practice and in the course of patient care. This statistic indicates that there is 26 times more opportunity to affect the patient's health in the office setting than in the hospital.

According to the Centers for Disease Control and Prevention, the average number of visits per person to a medical provider was approximately 3.2 per year (NCHS 2023), so medical practices have many more opportunities to intervene in basic health issues in the ambulatory setting than the inpatient environment has. In many cases, by the time a patient reaches the inpatient setting, the window for avoiding expensive care or preserving optimal health has closed.

Population health seeks to create a culture that encourages and actively promotes good health. Some of those underlying principles are listed in exhibit 12.6.

Exhibit 12.6
Ten Principles of a Culture of Health

1. Every individual, family, and community is seen as deserving of health and well-being.
2. Health is considered a shared responsibility within our society.
3. America's national narrative acknowledges that health and well-being is impacted by injustice, systemic racism, and inequities in social and economic conditions.
4. Everyone, no matter their background, has access to the resources they need to create conditions that support good health and well-being.
5. All families—no matter who they are, where they live, or how much money they make—should have the resources they need to help their children grow up healthy.
6. Healthcare, public health, and social services work together to fully address the goals and needs of the people they serve.
7. Public policy and decision-making in the private industry is guided by the goal of ensuring everyone has a fair and just opportunity for health and well-being.
8. Communities, regardless of income or geography, have the power, agency, and resources to create and implement their own solutions to the unique health issues facing them.
9. Health data, research, and measures prioritize collecting information by race, age, ethnicity, sex, geographic region, and other relevant factors, to advance health equity for all.
10. No one is excluded.

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Another way to think about the important role that medical practices play in public health (which is closely aligned with population health) is to consider the ten greatest public health achievements of the twentieth century (CDC 1999):

- Vaccination
- Motor vehicle safety
- Safer workplaces
- Control of infectious disease
- Decline in deaths from coronary disease and stroke
- Safer and more healthful foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

Each of these achievements was either actuated or supported by physicians and other medical practice staff. By providing treatment, knowledge, and surveillance, medical providers have been instrumental in addressing many public health issues and will be integral to implementing new population health strategies in the future.

Chronic Disease

As demonstrated in chapter 1, the cost and the magnitude of chronic disease in the United States is astonishing. One issue of concern in practice management is how to effectively deal with patients experiencing chronic disease. Changing reimbursement schemes and increasing expectations of the physician practice to provide enhanced patient experiences and high-quality care at lower cost have placed responsibility squarely on practices to manage chronic disease effectively. A common belief among observers has traditionally been that the healthcare system has a limited ability to influence the health behaviors that lead to disease; therefore, linking payment to demonstrating improvements in these behaviors seems unfair. In addition, payment and time devoted to the care and prevention of chronic disease has long been limited because the healthcare system has been focused on treatment instead of preventive care. In truth, we have a sick care system, not a healthcare system.

That perception is changing, albeit slowly. One of the most important concepts in managing chronic disease is patient activation, which indicates a person's ability to manage

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their health and healthcare. Patient activation can be facilitated by providing patients with the knowledge, skills, and confidence to be engaged in their care. Patients who score low on activation are much less likely to take an active role in their healthcare and do not seek care as advised or as appropriate, especially with regard to chronic disease.

As reimbursement focuses more on value-based outcomes programs that in part encourage healthy behaviors, medical practices will need to effectively activate patients in their care, thereby improving health results.

Epigenetics

Epigenetics is a field of study that explores the impact of environmental and lifestyle factors on gene expression and disease risk. Epigenetics has been shown to play a significant role in the development and progression of cancer (CDC 2022; Davalos and Esteller 2022). Epigenetic changes can contribute to cancer risk in a number of ways:

- *Gene regulation*. Epigenetic changes can alter the expression of genes involved in cell growth, division, and death, leading to the development of cancer. For example, changes in the DNA can lead to the silencing of the genes that suppress tumors, while modifications to histone proteins important for cell integration can lead to the activation of oncogenes, which can transform cells into tumors (Gregory et al. 2017).
- *Developmental programming*. Environmental factors experienced during critical periods of development, such as prenatal exposure to toxins or stress, can induce epigenetic changes that increase the risk of cancer later in life (Davalos and Esteller 2022; Hirst and Marra 2009).
- *Age-related changes*. Environmentally induced modifications to our DNA change with age, and these changes can impact the regulation of the genes that are involved in cancer, leading to an increased risk of disease. Exposure to environmental toxins, as well as diet and lifestyle factors such as tobacco smoking, alcohol consumption, and physical inactivity can induce epigenetic changes that increase the risk of cancer (Lamberto et al. 2021).

By understanding the epigenetic mechanisms that contribute to cancer, researchers can develop new strategies for prevention and treatment. For example, drugs that target specific epigenetic changes in cancer cells can be used to inhibit the growth of tumors and improve patient outcomes (Sadikovic et al. 2008).

Although poverty and deprivation can have biologically direct effects on disease, factors such as inadequate diet or exposure to alcohol, tobacco, and other toxins may have

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later-emerging effects in which epigenetic mechanisms play a part (CDC 2022; Lehane et al. 2018; Rasool et al. 2015).

Upstreaming

The healthcare industry has begun to recognize that population health strategies cannot be executed without the integration of medical providers, either through a clinical integration approach or by bringing providers into the organization in an employment model (Hegwer 2016). Upstreaming provides a fresh view of overall health-related issues. Upstreaming is a public health concept that is best described as looking at the root causes of health problems and concerns and directing resources to address those problems. An often-told story may help to further explain the concept:

> One day, two individuals were walking along the riverbank when they looked out and saw a child struggling in the water. They quickly jumped in to rescue the child, and although the water was swift, through the heroic efforts of the two rescuers, they were able to safely bring the child to shore.
>
> The child went happily along his way, and the two individuals proceeded on their walk. Again, they looked out in the water and saw another child struggling and on the verge of drowning in the rapidly moving current. In heroic fashion, the two again rescued the child. No sooner had they made it to shore when they saw another child in the same predicament. One of the rescuers began to walk upstream in a rapid pace, while his friend looked dismayed and said, "Where are you going? More children need to be saved." To that the rescuer replied, "I'm going to see who's throwing these children in the water."

Our view of medical practice has always been that the practice is responsible only for treating acute illness and injury. As our understanding of health and health-related issues has increased, we now know that treatment is not enough if we are to bring the healthcare system into a new era. Although practices will always need to provide lifesaving and quality-of-life enhancing treatments to their patients, they will also need to "take an upstream view" of health-related issues. This point can be illustrated with another story about upstreaming and the practice environment:

> A young uninsured man presented to the practice on a regular basis with his diabetes continually out of control. Each time, the physician ascertained the problem and prescribed treatment for the patient, which required hospitalization. Following each treatment, the man's condition stabilized and he resumed his normal life. However, the treatment was expensive for the healthcare system to provide, and it had to write off the cost as either bad debt or charity care because the patient was uninsured.

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Eventually, after this sequence of events had occurred over and over again, the physician began to wonder why, considering this patient's disease could be controlled with medication, diet, and exercise. The next time the patient presented to the practice, the physician spent some time talking with him. The physician asked, "Why is it that every six weeks you're in the office, needing to have your diabetes brought under control?" The young man replied, "Well, Doc, I am a laborer and often have to work out of town. Because I have no health insurance, I only receive 30 days of medication from the medical assistance program here in the city. Unfortunately, I run out of medicine about two weeks before I'm able to return home. After two weeks with no medicine, my sugar is too high." The physician replied, "Well, no wonder. We can see about getting you an additional allotment of medication that will last you until you return home between jobs." After that solution was implemented, the young man was not seen under those circumstances again.

This is upstreaming.

By simply treating what was presented to the office, the real cause of the problem was not evident. The patient had to be asked—be engaged in a dialogue—to bring the source of the problem to light. The average physician spends less than 12 seconds listening to a patient before they interrupt and begin to speak (Rhoades et al. 2001). This study is more than two decades years old, but with so much else in healthcare changing, this finding has not. The rigidly timed 15-minute office visit erodes physician and patient relationships and has been driven by the need to produce volume rather than value (Rabin 2014). Dialogue, which must include listening to patients, is a very powerful tool—one that must be used in the medical practice.

Other ways that upstreaming can be supported by medical practices include paying attention to public policy updates and supporting policies that reflect the well-being of the practice's patients. They need to care about the condition of sidewalks, street lighting, and safe places for children to play. They also should think about the availability of nutritious food at reasonable prices, such as provided through urban gardens, and encourage policymakers to make decisions for the community that promote health and healthful behavior.

Providers must abandon the "don't ask, don't tell" policies that practices have often followed, reluctant to delve deeply into social and other concerns that patients may have beyond their medical complaints. The provider often feels helpless to address them. To combat that sense of helplessness, practices can develop a list of resources available in the community to assist patients with needs that extend beyond the practice's limits (Manchanda 2014).

Payment reform will also encourage collaboration and cooperation in addressing problems that lead to negative health outcomes. As has been stated often in this text, the volume-based reimbursement system has led to less-than-optimal health outcomes because "we don't get what we don't reimburse." Busy practitioners have difficulty in the

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current system balancing the financial needs of the practice and the needs of the patient. In the 2012 documentary *Escape Fire*, Dr. Donald Berwick states that every person in the healthcare system is doing exactly what they should be doing on the basis of their needs and incentives. Until the system encourages cooperation and a greater focus on upstreaming, practices will continue to struggle to meet the increasing demands of the chronically ill as well as the spiraling cost of care (Heineman and Froemke 2012). The time has come to stop blaming and start working together to bring about an enhanced reality for the US healthcare system and the patients served.

Underserved Areas and Community Health Centers

Many practitioners would like to serve rural and other underserved communities but have difficulty doing so because of the economic situation inherent to many such communities. For example, 14 percent of the population lives in rural communities (Dobis et al. 2021), while only 11 percent of medical practices serve those areas (Shipman et al. 2019). In addition, rural communities often have older populations, and as we know, older populations require more medical care than younger populations do.

Community health centers are a form of medical practice that may receive federal and state funding to provide primary care to underserved areas. They typically are unable to operate entirely on their own because the economic base is lacking to support them. They are found in both urban and rural areas. Though the people served by them may have insurance, as in many rural areas, the population base is not large enough to support a thriving practice and these community services need to be supported for them to exist. A community needs medical services even if the population is too small to support a practice.

Practices in these environments should consider seeking governmental support to maintain and expand their practice when the local population is not able to do so. The Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services is one resource for these existing practices and for those interested in starting practices in underserved areas (HRSA 2019). Many of the programs that apply to rural areas also apply to underserved areas in urban communities, such as the Health Professional Shortage Area program (HRSA 2023).

An example of how practices can become involved in their underserved communities was demonstrated by the Sanger Clinic. As part of a Reach 2010 coalition project sponsored by the CDC (2017), the clinic engaged with 45 neighborhoods and 25 other agencies for the purpose of improving the cardiovascular health of the community. The practice built coalitions, provided education, and increased awareness of related healthcare issues. In the process, it promoted goodwill and reduced the reluctance of patients to seek help while positioning itself as an active member of the community. As shown in exhibit 12.7, in the initiative's early phase, more than 5,000 people received information and follow-up treatment, and an outreach clinic treated more than 40 people with serious, potentially

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EXHIBIT 12.7
The Role of Physician Group Practices in the Healthy Communities Movement











Healthy Families, Healthy Communities

A collaborative effort of more than 45 neighborhoods and 25 agencies to help improve the physical and mental health of underserved communities.

General Strategy

- Increase awareness of health care issues
- Increase community leadership and goodwill
- Position the medical group as a active and contributing member of the community

Benefits

Efforts such as *Healthy Families, Healthy Communities* cannot be measured entirely by financial statements or traditional measures of success. We must also consider the intrinsic value to ourselves and the communities we serve, including:

- Better, stronger, healthier communities
- Personal and professional fulfillment by medical staff
- Placing medical staff communities as leaders and builders for the future

Serving The Entire Community

With 50 staff physicians specializing in cardiovascular medicine and thoracic and cardiovascular surgery, we combined our individual efforts into community success. An Outreach Clinics was established at a local health center, we participated in sponsorship of health fairs, Heart Walks, a speakers bureau and the distribution of Heart/Health Assessment literature in underserved communities.

Results

To date, approximately 5,000 people have been provided information, initial and/or follow-up treatment through this collaborative effort. The Outreach Clinic has treated 41 seriously ill patients thus far. These people would not have had traditional access to a health care system, or would have done so only on an emergency basis.

Your Turn

"Why are you here, and what do you bring to the table?"
If you have questions, or would like information on starting a program in your community, contact:

Dr. Stephen Wagner. Ph.D., FACMPE
Administrator
Sanger Clinic
1001 Blythe Blvd.
Suite 300
Charlotte, NC 28203
(704) 373-0212 • Fax (704) 372-1488

Not Just Meeting Health Care Needs, Exceeding Them.

THE SANGER CLINIC PA
Specialists In Cardiovascular Medicine And Thoracic And Cardiovascular Surgery

Source: Sanger Clinic (2017).

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life-threatening issues. "Why are you here, and what do you bring to the table?" was the practice's motto in this exemplary community movement (Wagner 2003).

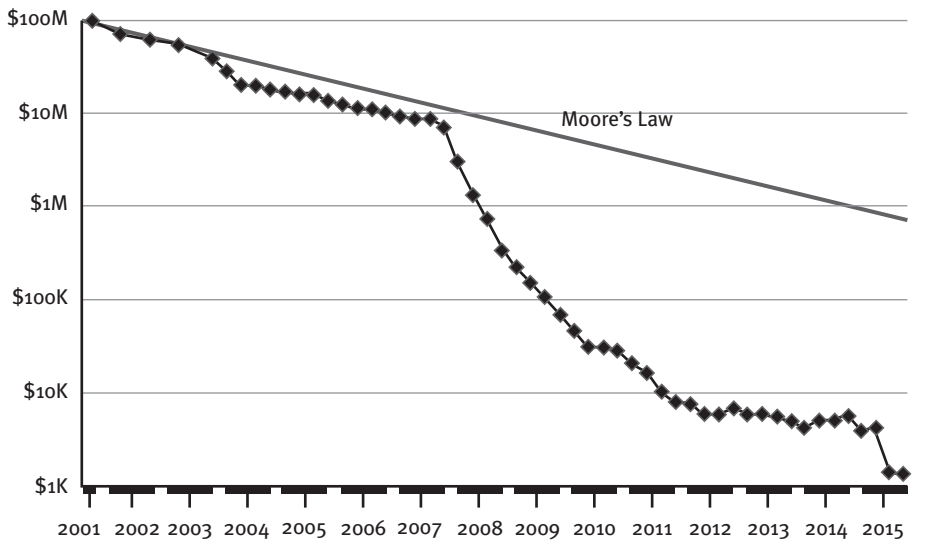
Genomics and Precision Medicine

Another game-changer in technology is occurring in the field of genetic mapping and testing. Coupling genetic testing with advanced analytics has ushered in a whole new dimension of medical practice. Genomics provides the medical practitioner with the promise of providing precision medicine to each patient instead of treating patients based on more general criteria (Collins and Varmus 2015).

The first sequencing of the human genome took more than 15 years and cost over $3 billion to complete. On subsequent sequencing rounds, the cost began to come down. The dramatic cost reduction has been due to the development of automated technologies for sequencing and improved techniques. Today, private-sector companies can conduct a human gene sequence in a matter of days or hours at a cost of less than $1,000 (Illumina 2023; *Nature* 2010). Exhibit 12.8 shows the incredible reduction in the cost of sequencing a genome.

From this breakthrough research, we can now envision a day when patients will enter the medical practice and present the clinician with a thumb drive with their genome on it and say, "Treat me." Implicit in this statement is treat *me*, meaning, specifically me,

Exhibit 12.8
Cost per Genome



Source: National Human Genome Research Institute (2021).

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not some average person between the ages of 18 and 64 who weighs between 100 and 250 pounds. The significant variation among people likely has an important role in the efficacy of treatment (Tsimberidou, Eggermont, and Schilsky 2014). How will medical practices meet that coming reality? Are they even thinking about it? Will medical practices' response depend on the emergence of a generation of physicians that embraces genomics before it becomes reality? All these questions remain unanswered for now, but we can be certain that practices will see technology and the knowledge base related to genomics and precision medicine advance rapidly in the coming years.

Exhibit 12.9 illustrates a model for how to conceive of precision medicine working in the medical practice. The patient and their genetic profile interact with the provider and the data analytics platform through a connection to the cloud. A specific diagnosis is determined, and all treatment options known at the time are assessed for that patient. As databases containing specific genetic interactions with medications and treatments grow, the ability to pinpoint those treatments will likely increase.

A cohort initiative, which follows a specific group of people of all ages, genders, and backgrounds, called the Precision Medicine Initiative Cohort Program is currently under way by the National Institutes of Health (2023). About 1 million people are involved in the research and will share biological samples of genetic data, dietary behaviors, and lifestyle patterns. This information will be linked to their electronic health record to determine how resulting actionable data can be brought to the clinical practice for care delivery. Exhibit 12.10 illustrates the important features of the Precision Medicine Initiative Cohort Program. The medical practice and its management and leaders need to be cognizant of developments in this emerging field, as this and similar studies will likely yield new practice protocols.

The Internet and Self-Efficacy

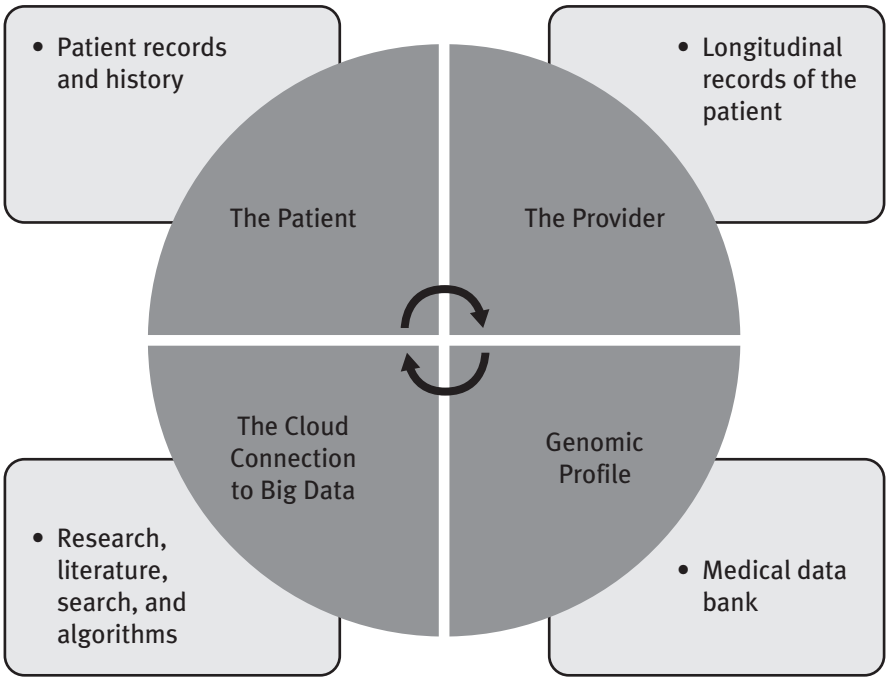
In the past 50 years, we have seen a dramatic change as society has moved from the Industrial Age to an age of information, and many of the predictions and the ideas presented in Alvin Toffler's 1984 book *The Third Wave* have come to pass.

The internet has had, and will continue to have, a dramatic impact on the delivery of healthcare. It has democratized healthcare information such that it is widely available to virtually everyone who has access to the internet, which has allowed patients and caregivers to be more fully informed and engaged in healthcare decisions. In the past, most consumers of healthcare were almost completely reliant on the provider for this information.

In his 2016 book, also titled *The Third Wave*, Steve Case discusses the impact the internet will have on many aspects of our lives, including healthcare. The first wave of the internet established the infrastructure. Some of us can recall the days of dial-up modems, slow connections, no spam, and few e-mails. Of course, those days are gone, and now the internet is integrated into our lives. The second wave is the increasing application of the internet to the world, which is seen in how we purchase products, how we find our way to

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Exhibit 12.9
Precision Medicine



locations using interactive maps and navigation apps, the way we obtain information, how we interact with one another, and many other aspects of our daily lives.

However, healthcare is only beginning to adapt to the information age. In the future, the internet may have the most profound impact on healthcare delivery of any transformation seen to date. This is represented in the third wave, where industries are revolutionized by incorporating and using the internet in ways not previously seen (Case 2016).

Although the availability of information offers many benefits, it also creates challenges. Healthcare delivery is a complex activity, and often, information found on the internet is either unreliable or difficult for a nonclinician to interpret, which can lead to misunderstandings and distrust. Enlightened providers help their patients seek information about their conditions by directing them to appropriate sites that offer helpful information about their health needs. They also encourage patients to discuss and interpret the information they find. Given the time constraints of the volume-driven practice, finding the time to guide patients in this way is difficult. But that situation will need to change because, in the end, a better-informed patient can be a better partner in her care, which will then lead to better outcomes.

Practice management professionals are coming to realize that the healthcare provider cannot bear the entire burden of healthcare outcomes. When discussing new payment

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EXHIBIT 12.10
National Institutes of Health's All of Us Research Program

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models that tie outcomes to reimbursement, providers often express concern that they have no control over patient behavior, which is frequently the primary cause of negative results. Therefore, self-efficacy has become an important issue in practice management. The practice needs to find effective and efficient ways to help patients manage their conditions, especially those of the chronic nature. The more the patient understands and believes in her ability to influence her medical outcome through her efforts, the more likely she is to be successful.

One effective way to support patients in this effort is to use online engagement tools. These tools offer several important features that improve patient engagement and ultimately patient outcomes. The features are often targeted to a specific patient group. Patients volunteer to participate in studies that help delineate the different groups, which increases the likelihood of the successful utilization of the tools.

For example, a study by Solomon, Wagner, and Goes (2012) found that the use of online tools increased patient activation. In this study, patients were given information either online or in written form. The information provided to the online group included modules driven by algorithms that met the patient at the educational level appropriate for their knowledge regarding the condition. For example, the online diabetes program progressed much like the following:

> The patient logs in to the educational program presented to him on diabetes. The patient enters the interactive module and receives this prompt: "Hi, my name is Linda. I understand you have diabetes."
>
> On the basis of the patient's response (for purposes here, that response is affirmative), the module continues: "So, how much do you know about your diabetes?"
>
> The patient selects an option from a menu ranging from very little to significant amounts of knowledge. On the basis of that selection, the interaction continues. If the patient selects an intermediate level of knowledge, the module responds: "That's good; so you know a quite a bit about your condition. Would you like to know more about the A1c level and what it means to your diabetes care?"
>
> If the patient responds "yes," Linda explains in some detail about the A1c level and its importance in the treatment of diabetes.

Online modules of this type have been shown, in this study and others, to be more engaging and to increase the level of activation by the patients who use them. In the research by Solomon and colleagues (2012), the traditional written format approach to providing patient educational materials had significantly less impact on engagement. Regular reminders also helped patients follow through with the necessary steps to optimize their care (Lorig et al. 2008; Solomon, Wagner, and Goes 2012).

More than 90,000 new digital health apps were added to app stores in 2020—an average of more than 250 new apps every day, with more than 350,000 available on app stores worldwide (IQVIA Institute 2021). And the number continues to grow, offering an

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unprecedented amount of new information and tracking and monitoring capabilities, and providing tremendous empowerment to patients to care for themselves. The implications for medical practice are similarly unprecedented, as, for example, physicians can now prescribe medical apps for their patients to assist them in managing their care.

Nontraditional Providers

The impact of nontraditional providers on the traditional medical practice is best illustrated with a story.

> One day, Steve woke up and did not feel so well—probably nothing serious, but he thought he could use some medical attention. He placed a call to his regular doctor inquiring about the availability of an appointment. "I'm in the neighborhood and I'm not feeling so well today," Steve said. "Would you have time to see me?" The receptionist replied, "I am very sorry, Steve, but we have no appointments until the day after tomorrow." Steve responded, "Wow, I'll either be much worse or better by then. By the way, how much will it cost to see the doctor? I have a high-deductible health plan (HDHP) and have to pay the cost myself for the first few thousand dollars." The receptionist replied, "I'm not really sure what it will cost. It depends, but our typical office visit is approximately $150." Feeling that he really needed some symptomatic relief, Steve headed to his local pharmacy thinking that the pharmacists might be able to recommend something for his symptoms. On arriving, he was surprised to see an urgent care clinic, and further surprised that he could see a provider right away and the cost for the visit would be $80. Steve saw the clinician at the urgent care center and as a courtesy canceled his appointment with his doctor scheduled two days later.

The moral of the story is twofold. The modern medical practice will need to be more responsive to the needs of patients and their desire for immediate service or forgo offering this type of service. In the past, practices have scheduled their resources on their own terms and on the basis of their own needs, not on the demands of patients. In addition, the advent of the HDHP as the dominant form of insurance in the United States is making patients economically sensitive, more like consumers of other goods and services, where price matters.

The tremendous growth in nontraditional provider offerings has come about because these new entrants in the healthcare space see the opportunity in providing more convenient or cost-effective services to the patient by incorporating retail concepts into the delivery of healthcare. Currently, about 2,000 retail clinics are operating in the United States inside pharmacies, grocery stores, and supercenter retailers (Zawacki et al. 2023). The largest players are Walgreens, Walmart, and CVS. Virtually all large health systems have developed services in the urgent care format. The nontraditional provider limits the services it

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offers, defines those services carefully, and focuses on convenience to attract customers. As a result, retail clinics are serving ever-increasing numbers of people. According to a report by the US Census Bureau, one in four children and three in ten adults visited a retail health clinic or urgent care clinic between 2018 and 2020 (Zawacki et al. 2023). Modern medical practices must keep this competitive model in mind and seek ways to improve access and convenience. Some recommended steps toward this end include the following:

- Extending hours, which may require the addition of providers such as nurse practitioners and physician assistants
- Offering clinics for specific services such as sports physicals
- Offering virtual care services
- Providing clinic hours on weekends and holidays during specified times for established patients

Site-Based Corporate Medical Services

Corporations often join forces with medical practices to provide on-site medical services to their employees. The organization provides a facility that is staffed by members of the medical practice. Services provided by on-site clinics include some or all of the following:

- Employee physicals
- Screening programs for early detection of disease
- Episodic care for minor illness and injuries
- Short and long-term disability follow-up
- Chronic disease management
- Health education

Site-based clinics offer a number of advantages for the employees as well as the organization. They may be less costly than employees seeking care on their own, and they certainly allow for reductions in the amount of time employees are away from the workplace, enhancing productivity. Employees appreciate the opportunity to seek medical services without missing work and losing income. Many employers allow the employee to seek medical services on-site without docking their pay.

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Concierge Practices

Although not a new concept, concierge practice has gained popularity in recent years. The basic aspects of this form of practice involve a monthly or annual fee paid directly to the practice in exchange for a heightened level of service. Such enhanced service may take the following forms:

- On-demand phone and virtual consultations
- E-mail privileges with the provider
- Quick access for on-site services (most concierge practices do not have waiting rooms)
- A closely developed relationship with the provider

This level of attention is possible because concierge practices accept a limited number of patients. A typical primary care practice may have as many as 2,500 to 4,000 patients, whereas a concierge practice might have only 400 to 600. These practices usually do not take or bill insurance. However, some insist on the patient having private insurance for services not provided in the concierge practice agreement. Only the services defined in the agreement with the practice are covered under the fees charged.

Although at one time, these practices were considered the domain of the wealthy in society, this paradigm is beginning to change. Frustration with the current healthcare system has led more patients to opt for the concierge practice, and more providers are finding satisfaction in practicing this way. Not surprisingly, this satisfaction is attributable to lower operational complexity, reduced cost, and the reduced patient load, allowing concierge providers to deliver more thorough services and spend more time with their patients than typical providers can. Most providers who have switched to a concierge format do not experience a reduction in income even though they see significantly fewer patients (Leonard 2012).

Wearables and Internet-Based Medical Services

Wearable health technology encompasses a variety of devices, such as smart watches, fitness trackers, and glucose monitors, that are worn on the body and use sensors to collect health data; often, wearables are used in conjunction with a smartphone app. Whereas in the past, patients had to visit the medical practice to be monitored, the internet and sophisticated devices now allow for that monitoring to be done continuously, without going to the office. Monitoring for heart arrhythmias is an example of this type of monitoring. Wearables are being used more often for self-monitoring of blood pressure, blood sugar, sleep, and other

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important vital signs. According to a 2020 survey conducted by the Pew Research Center, 21 percent of adults in the United States said that they regularly wear a smart watch or fitness tracker (Vogels 2020). In this way, wearable devices are becoming an integral part of medical care (Aitkin, Clancy, and Nass 2017; Gilmore 2020; Umay, Fidan, and Barshan 2017).

Telehealth and Telemedicine

Although the terms *telehealth* and *telemedicine* are often used synonymously, they refer to different activities: *Telehealth* refers to a variety of educational, public health–related, and other nonclinical services that can be delivered using the internet, videoconferencing, streaming media, and other technologies. *Telemedicine* refers specifically to providing clinical services online or remotely. *E-health* is another term that is frequently used. For our purposes, the common term *telehealth* is used to refer to all three.

Telehealth offers a number of potential benefits to the medical practice:

- It provides healthcare access for people in remote or rural environments or those who are unable to travel easily.
- It provides a tool for managing long-term chronic illnesses without the need for expensive and time-consuming office visits.
- It can help minimize hospitalizations by addressing nonemergent problems quickly.
- It increases the number of patients who can be seen or treated in a given time.
- It provides a new, innovative servicing practice that is in demand by patients.
- It helps prevent the spread of infectious diseases by allowing patients to be evaluated remotely.

The COVID-19 pandemic accelerated the use of telehealth, as it offered a safe way to provide clinical healthcare services without the risk of infection. This trend is likely to persist because of the convenience, efficiency, and improved technology of telemedicine, allowing for it to be used for many routine medical services and deployment of scarce medical resources where there are provider shortages, or transportation issues (Kruse et al. 2017; Mace, Boccanelli, and Dormond 2018; Omboni 2020; Seshamani 2022; Sklar 2020).

Virtual Care

In 1962, Hanna-Barbera produced the cartoon show *The Jetsons*. In episode 10, the cartoon showed what was probably the first example of a virtual physician visit, where the son, Elroy,

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sees the doctor over a video screen. Little did viewers know at that time that the episode was predicting what would become a reality decades later.

The virtual care market is expected to reach $122 billion by 2033 at a compound annual growth rate of 17.4 percent from 2023 to 2033 (Persistence Market Research 2023). If the modern medical practice is not proficient at providing telehealth services, it could become a significant competitive disadvantage for the practice. The barriers of technology and payment for virtual services have largely been overcome, as both insurers and patients are increasingly comfortable paying for this new utility (Herman 2016). HDHPs make the use of virtual services attractive as well because they are typically less expensive than office visits for the patient.

Social Media

Social media is a key tool for medical practices that is likely to become even more important in the coming years. Practices can use social media to perform the following functions:

- *Communicate with patients*. Social media can be an effective tool for reminding patients about needed medical services or reminding them of necessary healthcare compliance issues. An online presence can establish the practice as an authority and expert in patient care and provide a social media channel (or portal) that allows easy communication for both the patients and the practice; the share of US adults who use social media has increased from 5 percent in 2005 to 72 percent in 2021 and has fundamentally changed the way we exchange health information (Pew Research Center 2021).
- *Communicate with colleagues*. Some practices use internal websites or messaging platforms (e.g., Slack) to facilitate interactions and information sharing, such as schedule changes or emergency closings, among providers and other members of the practice.
- *Communicate with the public*. Practices can use social media to convey up-to-the-minute wait times and information about health-related events, disasters or other disruptions to the office operations, location changes, and new providers and services.

The use of social media can have both positive and negative effects for the medical practice. Positive effects include the following:

- *Increased access to health information*: Social media provides a platform for people to access a wide range of health information, including advice from healthcare professionals, patient experiences, and the latest medical research.

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- *Improved patient–doctor communication*: Social media can help to facilitate communication between patients and doctors, making it easier for patients to ask questions and receive answers.
- *Increased awareness of health issues*: Social media can help raise awareness of health issues and promote healthy behaviors, such as regular exercise and healthy eating (Hayon, Goldsmith, and Garito 2014).

However, social media also has negative effects:

- *Spread of misinformation*: The internet is full of false or misleading information, and social media is no exception. As a result, there is a risk that patients will base their decision-making on inaccurate information.
- *Privacy concerns*: Sharing personal health information on social media can be a privacy concern, as sensitive information may be shared with unauthorized individuals.
- *Reduced face-to-face interaction*: While social media can be a useful tool for communication, it can also lead to a reduction in face-to-face interaction and a lack of personal connection between patients and healthcare providers.

Social media can be a powerful tool in medical practice, but it is important to use it with caution and to be mindful of its negative effects (Berg 2021). Practices that are considering the use of social media should carefully craft policies and procedures that maintain professionalism and privacy for patients and help practice members understand just how cautious they need to be about what information is shared. Practice managers must be sure that members of the practice are versed in the proper use of this medium (Hayon, Goldsmith, and Garito 2014).

Health Misinformation

Misinformation is information that is false or inaccurate and is intended to deceive. Social media has facilitated the spread of health misinformation. During the COVID-19 pandemic, for example, misinformation about vaccines spread like wildfire on social media, with significant effects on vaccine uptake. On one hand, social media provided a useful platform for public health organizations, health experts, and other trusted sources to share accurate information about the COVID-19 vaccines, which helped dispel misinformation and build trust in the vaccines. It was also used to raise awareness of the importance of getting vaccinated and the benefits of the COVID-19 vaccine (Fisher et al. 2020). On the other hand, social media was also a potent source of misinformation about the COVID-19

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vaccines, including conspiracy theories and false claims. As a result, some people were reluctant to get vaccinated (Enders et al. 2020).

Practices should encourage patients to use reputable websites and other resources when seeking health information. Practices should also be proactive in providing patients with good, accurate healthcare information (National Institute on Aging 2023).

Alternative and Complementary Medicine

In the United States, we often refer to the medical care that is provided by physicians and other healthcare professionals as *modern*, *Western*, *traditional*, or *conventional* medicine (Silvano 2021). These terms are used interchangeably. Other terms include *allopathic medicine*, *biomedicine*, *scientific medicine*, *mainstream medicine*, and *orthodox medicine*.

The term *alternative medicine* refers to medical practices that are not commonly used in Western societies. *Complementary medicine* refers to the combination or concomitant use of alternative and traditional medical practices. We consider both together and use the term *alternative and complementary medicine* (CAM). Because few people in the United States forgo conventional treatment altogether, the term *integrative medicine* is often used (Mayo Clinic 2014).

The National Center for Complementary and Integrative Health (NCCIH 2021) summarized the most commonly used forms of CAM:

- Natural products, such as herbs and supplements
- Deep breathing
- Yoga, tai chi, and qi gong
- Chiropractic and osteopathic manipulation
- Meditation
- Massage
- Special diets
- Homeopathy
- Progressive relaxation
- Guided imagery

Americans spent more than $30 billion on complementary and alternative services in 2012 (NCCIH 2016). Private industry sources place the figure much higher. A 2017 Pew Research Center survey indicated that two in ten adults in the United States use alternative medicine to the exclusion of traditional medical care.

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Patients spend nearly 30 percent more out of pocket for CAM services compared with conventional physicians. One reason is that many insurance plans do not cover CAM services, although some insurance companies are beginning to pay for services as evidence of their effectiveness mounts (American Cancer Society 2021).

Although complementary and alternative medicine has been used for thousands of years, until recently, there has been little scientific evidence to support its effectiveness, and therefore modern practitioners have been reluctant to prescribe or suggest the use of CAM modalities. That mindset is beginning to change, and there is increasing interest in the use of supplements and other CAM applications, especially for the prevention of illness (Soós et al. 2016). There is also evidence that the integration of conventional medicine with CAM approaches may be useful for the prevention and treatment of communicable and chronic diseases related to behavior and lifestyle (Seetharaman, Krishnan, and Schneider 2021).

Key findings from a first-of-its-kind study by Phutrakool and Pongpirul (2022) comparing the acceptance and use of CAM across medical specialties found that nearly three-quarters of the specialties studied accepted CAM more than 50 percent of the time. In addition, nearly one-third of specialties were using CAM more than 50 percent of the time. The range of use was 45 to 52 percent. The specialties that were most likely to recommend and use CAM practices were as follows:

- Family medicine
- Psychiatry and neurology
- Neurological surgery
- Obstetrics and gynecology
- Pediatrics
- Anesthesiology
- Physical medicine and rehabilitation
- Internal medicine
- Surgery

The authors concluded that these findings are useful for improving care plans, decision-making processes, and communications between doctors and patients (Klein et al. 2017; Phutrakool and Pongpirul 2022).

The increasing uptake of CAM modalities raises some concerns for healthcare practitioners. Cohen and colleagues (2005) provide a detailed legal analysis of the issues around

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CAM and CAM practice. Practices and practitioners entering this area of medical care should be aware of this emerging body of law, which considers the following areas:

- Credentialing and licensure
- Scope of practice
- Malpractice liability
- Access to treatments
- Professional discipline
- Third-party reimbursement
- Healthcare fraud

Behavioral Economics and Changing Patient Behavior

One of the greatest challenges facing healthcare today is getting patients to understand and comply with medical advice. Virtually everyone knows they should not smoke or engage in risky behavior and that they should make good choices about eating, get exercise, and get regular medical checkups. In a study published in 2016, researchers found that a substantial number of cancer cases might be prevented by behavioral modifications (Song and Giovannucci 2016).

Why don't we do it? Behavioral economics studies show promise in offering solutions to help patients make good decisions and to change negative behaviors. Unlike traditional economics, behavioral economics incorporates psychological insights and neurobiology and takes into consideration that people are not always rational but rather make emotionally based decisions (Thaler 2015).

Medical practitioners and patients alike fall into "decision traps" that prevent them from making good decisions. The following are some of the most common decision traps (Plous 1993):

- *Overconfidence bias*—Holding unrealistically positive views about oneself and one's performance
- *Immediate gratification bias*—Choosing alternatives that offer immediate rewards and that avoid immediate costs (also known as discounting future value)
- ***Heuristics***—Using rules of thumb to simplify decision-making

Heuristics
Mental shortcuts that provide the decision maker with a predetermined conclusion about a situation based on past experiences.

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- *Anchoring effect*—Fixating on initial information and ignoring subsequent information
- *Selective perception*—Selecting, organizing, and interpreting events on the basis of the decision maker's biased perceptions
- *Confirmation bias*—Seeking information that reaffirms past choices and discounts contradictory information
- *Framing bias*—Selecting and highlighting certain aspects of a situation while ignoring other aspects
- *Availability bias*—Losing decision-making objectivity by focusing on the most recent events
- *Representation bias*—Drawing analogies and seeing identical situations when none exist
- *Randomness bias*—Creating unfounded meaning out of random events
- *Sunk cost errors*—Forgetting that current actions cannot influence past events and relate only to future consequences
- *Self-serving bias*—Taking quick credit for successes and blaming outside factors for failures
- *Hindsight bias*—Mistakenly believing that an event could have been predicted once the actual outcome is known

The medical practice should incorporate these behavioral economics ideas into patient care to produce improved outcomes (Thaler and Sunstein 2009). In doing so, it needs to consider several factors of a behavioral economics approach related to patient compliance issues. Society is bombarded constantly by messages from fast-food companies, drink manufacturers, and many other marketing efforts that encourage people to engage in activities that may be detrimental to their health. The healing and treatment efforts undertaken by practitioners are often ineffective against advertisements that are seductive and highly engaging. The behavioral economics factor provides an emotional hook to the activity being encouraged, and flashy advertisements are effective at sharpening that hook. Compare the brochures on display at medical practices—the ones with all the facts and figures—to an ad that features attractive people enjoying a 1,000-calorie sandwich with a 500-calorie drink. Particularly insidious is the fact that the people shown indulging in high-calorie, high-sugar, or high-fat fare are not obese but instead thin, lean, and attractive with a lot of energy: the picture of health. Medical practices must determine a way to combat that imagery by making good choices appealing.

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Research shows that a number of behavioral techniques, such as providing incentives, can be effective in helping change patient behavior (Rice 2013). The first is the patient contract. Creating a contract between the provider and the patient to comply with certain instructions on diet or another healthcare issue has been found to be effective for ensuring compliance. The act of signing a contract improves compliance, even though no real consequence results other than the fact that the patient has violated the contract if they digress. This approach has a strong cultural basis that makes it effective.

An example of a contractual intervention is the so-called Ulysses contract. Ulysses, the main character of the Odyssey series, wanted to hear the siren song but knew that it would mean sure death to him and his crew. To avoid this fate, he asked his crew to lash him to the mast of his ship so that he could not be tempted to leave the ship. The crew filled their ears with wax to prevent them from hearing the song, and no matter how much Ulysses asked, he was not released from his tethers.

The point of the Ulysses contract in the patient health context is to make the activity impossible (or at least difficult) to do. An example is to ask one household member to lock snacks in a cabinet and deny access to the person who wants to refrain from eating them. Another example is to lock a driver's cell phone in the trunk of the car to prevent texting and driving (Ariely 2009).

Another tool is anti-charity giving. This technique involves the patient or the practice depositing a small amount of money into an account that is earmarked to be given to a charity. The patient selects two charities. One is a charity the patient likes and prefers giving to, and the other is a charity the patient dislikes and would never give to. The patient and provider agree that if the patient follows the instructions regarding a health intervention for a specified period (e.g., stop smoking for three months), the money will be donated to the charity chosen by the patient. If the patient fails to comply, the money is given to the charity the patient does not like. This simple technique has been shown to be effective in motivating new behavior.

These two ideas may help patients overcome one of the most difficult psychological decision traps, discounting future rewards. All of us have said, "I'll only do this one more time, and then I'll never do it again," only to break the promise and repeat the undesired action. Humans value current rewards more highly and disproportionately than future rewards, making health behaviors particularly difficult to influence. This adjustment also requires behavior change—for example, removing the temptation by not buying the foods that are unhealthful—because willpower lasts only so long. People are likely to engage in unwanted behavior if the temptation remains.

As we move to a new era that rewards outcomes, practices have a greater need to engage patients to comply and improve their health behaviors; these and other behavioral economics techniques may be useful in that effort. Companies are developing techniques and tools based in behavioral economics to engage patients, and several resources are available that practices can share with patients. For example, the American Heart Association (2017)

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provides information through its website, www.heart.org, and offers ideas to help patients and families change their eating behaviors through videos that feature good decision-making when eating out and selecting foods.

As we have seen in this text, healthcare in general and the medical practice in particular are undergoing dramatic changes. The rate of change is likely to increase, and practice leaders and managers will need to incorporate new ideas and strategies to effectively meet the needs and expectations of the future. Practices that remain stuck in the old paradigms of delivering care may find themselves facing a future fraught with difficulties. Armed with new information and new strategies, practice managers and leaders can actively lead positive change in a new era of medical practice. We must take the initiative to create positive change in our communities and not simply follow what others decide is right.

Discussion Questions

1. Describe the difference between first-curve and second-curve elements for medical practices.
2. What are some barriers to spreading innovation in the medical practice?
3. List examples in your community of physician practice outreach efforts to connect and serve the community beyond the office.
4. Discuss the importance of genomics to the future of medical practice.
5. Discuss the importance of precision medicine to the future of medical practice.
6. Describe some ways that payment for medical services will likely change in the future.
7. How do you think the role of the medical practice manager will change in the future?
8. How would you describe the future of practice management?

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APPENDIX

The following are lists of recommended resources applicable to practice management. Of course, any of hundreds more organizations may be of interest to the practice manager, so explore and find the organizations and sites that serve you best.

Journals and Magazines

American Journal of Health Behavior
American Journal of Health Promotion
American Journal of Health Studies
American Journal of Preventive Medicine
American Journal of Public Health
Australian and New Zealand Journal of Public Health
Frontiers of Health Services Management
Health Affairs
Health Care Management Review
Health Care Supervisor
Health Education and Behavior
Health Education Research
Health Policy
Health Promotion International
Health Psychology
Health Services Management Research
Health Values

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Healthcare Executive
Hospital & Health Services Administration (see *Journal of Healthcare Management*)
Journal of Behavioral Medicine
Journal of Disaster Studies, Policy and Management
Journal of Emergency Management
Journal of Family and Community Health
Journal of Healthcare Management
Journal of Homeland Security and Emergency Management
Journal of Public Health Management and Practice
Journal of School Health
Journal of the American Medical Association
MGMA Connection
Milbank Quarterly
Modern Healthcare
New England Journal of Medicine
Public Health Reports
Social Science & Medicine

Professional Associations and Organizations

American Association for Physician Leadership (www.physicianleaders.org)
American Association of Homes and Services for the Aging (www.aahsa.org)
American Association of Integrated Healthcare Delivery Systems (www.aaihds.org)
American College of Healthcare Executives (www.ache.org)
American College of Physician Executives (www.acpe.org)
American Health Care Association (www.ahca.org)
American Health Information Management Association (www.ahima.org)
American Managed Behavioral Healthcare Association (www.ambha.org)
American Medical Association (www.ama-assn.org)
American Medical Group Association (www.amga.org)
American Organization of Nurse Executives (www.aone.org)
American Public Health Association (www.apha.org)
American Society for Healthcare Human Resources Administrators (www.ashhra.org)
American Society for Healthcare Risk Management (www.ashrm.org)
Association for Health Services Research (www.ahsr.org)
Association of University Programs in Healthcare Administration (www.aupha.org)
Blue Cross and Blue Shield Association (www.bluecares.com)
Center for Healthcare Ethics (www.chce.org)
Commission on Accreditation of Rehabilitation Facilities (www.carf.org)
Council of Teaching Hospitals and Health Systems (www.aamc.org/coth)
Healthcare Financial Management Association (www.hfma.org)

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Healthcare Information and Management Systems Society (www.himss.org)
Health Insurance Association of America (www.hiaa.org)
Institute for Healthcare Improvement (www.ihi.org)
The Joint Commission (www.jointcommission.org)
Medical Group Management Association and American College of Medical Practice Executives (www.mgma.com)
National Association for Home Care (www.nahc.org)
National Association of Managed Care Physicians (www.accme.org)
National Hospice Organization (www.nho.org)
Robert Wood Johnson Foundation (www.rwjf.org)
Society for Healthcare Strategy and Market Development (www.shsmd.org)

Data Sets and Databases

Dartmouth Atlas of Health Care (www.dartmouthatlas.org)
Healio (www.healio.com)
HealthSTAR (http://igm.nlm.nih.gov)
Medline (www.nlm.nih.gov)
Medlink National Directory (www.biostats.com)
National Institutes of Health (www.nih.gov)
National Library of Medicine (www.nlm.nih.gov)
US Department of Health and Human Services (www.hhs.gov)

Foundations and Other Not-for-Profit Organizations

Center for Health Care Strategies (www.chcs.org)
Center for Studying Health System Change (www.hschange.com)
Commonwealth Fund (www.cmwf.org)
Foundation for Informed Medical Decision Making (www.dartmouth.edu/dms/cecs/fimdm)
Healthgrades (www.healthgrades.com)
Institute of Medicine (www.nas.edu/iom)
Leapfrog Group (www.leapfroggroup.org)
Medical Outcomes Trust (www.outcomes-trust.org)

Government Agencies

Agency for Healthcare Research and Quality (www.ahrq.gov)
Centers for Medicare & Medicaid Services (www.cms.gov)
US Department of Veterans Affairs (www.va.gov)
Health Resources and Services Administration (www.hrsa.gov)
National Institute for Health and Care Excellence (www.nice.org.uk)

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GLOSSARY

Account. A record of financial transactions; usually refers to a specific category or type.
Accountant. A person who is trained to prepare and maintain financial records.
Accounting. A system for keeping score in business, using dollars.
Accounting period. The period of time over which profits are calculated. Normal accounting periods are months, quarters, and years (fiscal or calendar).
Accounts payable. Amounts owed by the practice for the goods or services it has purchased from outside suppliers.
Accounts receivable. Amounts owed to the practice by its customers.
Accrual accounting system. An accounting system that records revenues and expenses at the time the transaction occurs, not at the time cash changes hands.
Ambulatory care. Healthcare services provided to patients on an outpatient basis, rather than by admission to a hospital or another healthcare facility.
Analytical. A decision-making style in which the decision maker gives careful consideration to the uniqueness of situations. This style is typically used when tolerance for ambiguity is high and decision makers are rational in their thinking.
Ancillary services. A range of services provided to support the work of a primary care physician, classified into three categories: diagnostic, therapeutic, and custodial.
Asset. An item of value owned by a business. May be a physical property, such as a building; a physical object, such as a stock certificate; or a right, such as the right to use a patented process.
Attitude. Mental state indicating level of readiness.
Audit. A careful review of financial records to verify their accuracy.
Bad debt. Amount owed to a practice that will not be paid.

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Balance sheet. A statement of the financial position of a practice at a specific time, often at the close of business on the last day of the month, quarter, or year.

Behavior. How an individual acts, especially toward others.

Breakeven point. The amount of revenue from sales that equals the amount of expense. Often expressed as the number of units that must be sold to produce revenues equal to expenses. Sales above the breakeven point produce a profit; sales below it produce a loss.

Capital. Resources, usually cash, available to invest or use for operations.

Capitation. Payment to the provider as a fixed amount for each patient the provider agrees to treat, regardless of whether those patients seek care. Payment is typically based on a set number of dollars per member per month.

Cash accounting system. Method of accounting by which income is recognized as it is received and expenses are recognized when they are paid.

Cash flow. The amount of cash generated by business operations, which usually differs from profits. Calculated as operating revenue minus operating cost.

Certificate of need (CON). Approval issued by a governmental body to an individual or organization proposing to construct or modify a health facility or to offer a new or different service.

Certification. A voluntary system of standards that practitioners meet to demonstrate accomplishment or ability in their profession. Certification standards are generally set by nongovernmental agencies or associations.

Chart of accounts. A listing of all the accounts or categories into which business transactions are classified and recorded. Each account is assigned a number, and transactions are coded by this number for computer analysis and manipulation.

Chronic illness. Diseases characterized by one or more of the following criteria: they are permanent; leave residual disability; are caused by nonreversible pathological alteration; require special training of the patient for rehabilitation; or require a long period of supervision, observation, or care.

Credit. An accounting entry on the right or bottom of a balance sheet usually reflecting an increase in liabilities or capital or a reduction in assets.

Current asset. An asset that is expected to be turned into cash within a year, including cash, marketable securities, accounts receivable, and inventory.

Dashboard. Similar to a car's dashboard, provides a medical practice with integrated and consistently presented operational data for decision-making.

Depreciation. An expense that is intended to reflect the loss in value of a fixed asset.

Environmental factors. Forces that influence the business but are external to the business itself, such as public policy, regulations, and economic conditions.

Equity. The owners' share of a business.

Expenditure. Occurs when an item is acquired for a business, an asset is purchased, salaries are paid, and so on.

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Expense. An expenditure that is chargeable against revenue during an accounting period resulting in the reduction of an asset.

Fixed cost. A cost that does not change as sales volume changes (in the short run). Normally includes such items as rent, depreciation, interest, and any salaries unaffected by increases or decreases in sales.

Goal. A specific target that an individual or a company tries to achieve.

Governance. A system of policies and procedures that is designed to facilitate oversight of the management of the enterprise and serves as the foundation of how the practice will behave, compete, and document its actions.

Health Insurance Portability and Accountability Act (HIPAA). Legislation covering many aspects of patient privacy and the sharing of private health information.

Heuristics. Mental shortcuts that provide the decision maker with a predetermined conclusion about a situation based on past experiences.

Interest. A charge assessed for the use of money.

Inventory. The supply or stock of goods and products that a practice has for sale.

Liability. An amount owed by a practice to an individual or entity.

Licensure. A mandatory system of state-imposed standards that practitioners must meet to practice a given profession.

Medicare Advantage. Program established by the Balanced Budget Act of 1997 whereby an eligible individual may elect to receive Medicare benefits through a managed care organization. Formerly called Medicare + Choice and still informally known as Medicare Part C.

Medigap. A supplemental health insurance policy sold by private insurance companies that is designed to pay for healthcare costs and services not paid for by Medicare or any other private health insurance benefits.

Organizational change. A process by which the organization evolves to help it adapt to a new set of environmental and competitive factors.

Organizational dynamics. The script for the organization's human capital, or the ways in which individuals and processes interact in the company.

Paradigm shift. A change in the way a practice views its business.

Pay for performance. A mechanism whereby providers are reimbursed on the basis of their success in meeting specific performance measures.

Point-of-service (POS) plan. A health insurance plan in which members do not have to choose how to receive services until they need them. Most commonly, the term applies to a plan that enrolls each member in both an HMO (or HMO-like) system and an indemnity plan. These plans provide different benefits depending on whether the member chooses to use plan providers or go outside the plan for services.

Post. To enter a business transaction into a journal, a ledger, or another financial record.

Preferred provider organization (PPO). A health insurance plan with an established provider network ("preferred providers") that covers maximum benefits when members visit a preferred provider.

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Present value. A concept that compares the value of money available in the future with the value of money in hand today. It is used to analyze investment opportunities that have a future payoff. For example, $78.35 invested today in a 5 percent savings account will grow to $100 in five years. Thus, the present value of $100 received in five years is $78.35.

Profit. The amount left over when expenses are subtracted from revenues. Also referred to as *income, net income*, or *earnings*.

Resource-based relative value scale (RBRVS). Means by which to determine the rate at which Medicare reimburses physicians on a fee-for-service basis. Calculated using the costs of physician labor, practice overhead, materials, and liability insurance, with the resulting amounts adjusted for geographical differences.

Retained earnings. Profits not distributed to shareholders as dividends; the accumulation of a practice's profits less any dividends paid out. Retained earnings are not spendable cash.

Return on investment. A measure of the effectiveness and efficiency with which managers use the resources available to them, expressed as a percentage.

Revenue. The amounts received by or due to a practice for goods or services it provides to customers. Receipts are cash revenues; revenues may also be represented by accounts receivable.

Risk. The possibility of loss, inherent in all business activities. High risk requires high return. All business decisions must consider the amount of risk involved.

Stakeholder. An individual or group that has a vested interest in the practice.

Stock. A certificate (may be electronic or another type of record) that indicates ownership of a portion of a corporation; a share of stock.

Strategy. The science of business planning whereby an organization plans its approach to achieving its goals.

SWOT. A strategic planning technique that systematically looks at a company's strengths, weaknesses, opportunities, and threats.

Telemedicine. The use of electronic communications and information technologies to provide or support clinical care at a distance.

Transformational leadership. A form of leadership intended to create change in individuals and the medical practice by encouraging valuable and positive change in followers and promoting growth in both followers and leaders.

Utilization review. An organized procedure carried out through committees to review admissions, duration of stay, and professional services furnished and to evaluate the medical necessity of those services and promote their most efficient use.

Values. The beliefs and guidelines an individual uses to make choices when confronted with a situation.

Variable cost. A cost that changes as sales or production changes. If a business is producing nothing and selling nothing, the variable cost should be zero.

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INDEX

Note: Italicized page locators refer to exhibits.

21st Century Cures Act, 89
9/11 terrorist attacks, 4, *6,* 346, 348

AAMC. *See* Association of American Medical Colleges (AAMC)
AARP, 166
Abandonment complaints, 298
ACA. *See* Affordable Care Act (ACA)
Academic medical centers (AMCs): physician practice management and, 51–52
Academic societies: medical education through, 14
Acceptance stage: in change process, 252
Access: practice conundrum and, 14, *15*
Account: defined, 47
Accountability: professional, 258, 290
Accountable care organizations (ACOs), 43, 52–53; defined, 195; features of, 52; integrated delivery systems *vs.,* 58; in medical practice taxonomy, *43*; Medicare Shared Savings Program and, 195–96; Triple Aim and, 53; well care and, 175
Accountant: defined, 114
Accounting, 7, 83
Accounting methods, 208–9; accrual accounting, 209; cash-basis accounting, 208–9; comparing, 209
Accounting period, 209
Accounts payable, 217, 223
Accounts receivable, 223; managing, 187; uncollectible, 221
Accrual accounting system, 209
ACHE. *See* American College of Healthcare Executives (ACHE)
Acid river team exercise, 376, *376*
ACMPE. *See* American College of Medical Practice Executives (ACMPE)
ACOs. *See* Accountable care organizations (ACOs)
Acquired immunodeficiency syndrome (AIDs), 4, 20
Acquisitions: dangers for patients, 60, *60*; mergers and, 60–66
Act component of PAST change model, *251*; assess the current state, *251,* 253; design and develop, *251,* 253–54; implement and measure, *251,* 254
Actionable knowledge: in strategic planning, examples of, 134
Active shooters in the building, 346
Acupuncture, 15, 380
Adaptive strategies: strategy formulation process and, 136
Addiction, 384; professionalism and, 292; treating, 366
Administrative burden: physician burnout and, 192

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Adoption curve: innovation and, 377, *377*
Advanced practice nurses, 385
Advanced practice professionals, 11–12. *See also* Nurse practitioners (NPs); Physician assistants (PAs)
Adverse actions: reporting to NPDB, 110
Adverse events: decline in, 317
Advertising: marketing *vs.,* 155
Advertising scams: cyber risk and, 361
Advisory Board, 8
Advocacy endeavors: governance of medical practice and, 304
Aetna, 166, 179
Affiliation agreements: with other organizations, 50
Affiliation *vs.* employment models, corporate practice of medicine and, *46,* 46–50
Affinity charts, 138, 335
Affordable Care Act (ACA), 16, 17, 116, 165, 267; ACOs defined in, 52, 180; commercial insurance and, 171–75; density of regulations in, 108; healthcare system and impact of, 18; lesson of, 383; limits on high-deductible health plans and, 171; Medicaid expansion and, 109, 185; Medicare Shared Savings Program and, 53; out-of-pocket maximums defined by, 172; passage of, 169; policy mapping of, 149–50; political division over, 381–82; preventive services under, 175; underwriting since passage of, 169; uninsured population and impact of, 173
Agency for Healthcare Research and Quality (AHRQ), 8, 382, 388
Aging of workforce: healthcare delivery system and, 271
Aging population, 379; chronic disease and, 21; COVID-19, specialized care, and, 68; epigenetics, cancer, and, 395; generational issues in the medical practice and, 296; growing healthcare portion of US economy and, 39
AHA. *See* American Hospital Association (AHA)
AHRQ. *See* Agency for Healthcare Research and Quality (AHRQ)
AI. *See* Artificial intelligence (AI)
AIDS. *See* Acquired immunodeficiency syndrome (AIDs)
AKS. *See* Anti-kickback statute (AKS)
Alcamaeon of Croton, *5*
Algahtani, Ali, 283
Alignment: marketing events and, *160*
All-hazards preparation framework: in emergency planning, 352
All of Us research program (NIH), *403*
Allopathic medical schools, 14
Allopathic medicine, 411
Alternative medicine: defined, 411; terms associated with, 15. *See also* Complementary and alternative medicine (CAM)
Alternative Payment Models (APMs), 194; MIPS *vs.,* 196
AMA. *See* American Medical Association (AMA)
Amazon Clinic, 69
Ambulatory care: defined, 25
AMCs. *See* Academic medical centers (AMCs)
American Academy of Family Physicians, 121; leadership and management training through, 286
American Association for Physician Leadership: leadership and management training through, 286
American Association of Colleges of Osteopathic Medicine, 14
American Association of Medical Colleges, *6*
American Association of Professional Coders, 189
American College of Cardiology: leadership and management training through, 287
American College of Healthcare Executives (ACHE), 3, 120, 198, 304; leadership and management training through, 286; online job boards, 238; website of, 108
American College of Medical Practice Executives (ACMPE), 3
American College of Physicians: leadership and management training through, 286
American College of Surgeons: leadership and management training through, 286
American Group Psychotherapy Association: website of, 108
American healthcare system. *See* US healthcare system
American Health Lawyers Association: website of, 109
American Heart Association: example of patient engagement, 415
American Hospital Association (AHA), 51; on improving cultural competency in healthcare organizations, 263

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American Medical Association (AMA), 190; principles for advancing gender equity in medicine, 264–65
American Medical Group Association: home page for medical organization formerly known as: 121; leadership and management training through, 286
American National Insurance Company, 166
American Recovery and Reinvestment Act of 2009, 78
American Red Cross: emergency management resources website, 358
Americans with Disabilities Act of 1990, 115
Amoral leaders, 292
Analytical: defined, 82
Analytical tools: in modern practice management systems, 82–83
Anchoring effect, 414
Ancillary services: defined, 83
Anger and blame stage: in change process, 252
Annenberg Foundation, 8
Antibiotics: increased resistance to, 386
Anti-charity giving, 415
Antigone (Sophocles), 319
Anti-kickback provisions: employment contracts and, 49
Anti-kickback statute (AKS): aims of, 117; becoming familiar with, 119; Stark law compared with, 117, *118*
Antiseptic surgery, *5*
Antitrust laws, 114–15
Aon Company survey: on healthcare workforce, 266
APIs. *See* Application programming interfaces (APIs)
APMs. *See* Alternative Payment Models (APMs)
Application programming interfaces (APIs), 89
Appreciative inquiry: quality improvement and, 335
"Are Leadership and Management Different? A Review" (Algahtani), 283
Aristotle, *5*
Arthritis, 20
Artificial intelligence (AI), 101–2; controversy surrounding, 390; data analytics and, 388–91; ways healthcare practitioners can be assisted by, 389–90
Assessment: in practice management model, *10*; and review, in talent management process, 244–45
Assets, 60, 117, *219*
Assets liabilities equity statements, *214*
Association of American Medical Colleges (AAMC), 14, 51, 265
Assurant, 166
Atrium Health: Best Buy partnership, 69; hack and data breach, *101*
Attitudes: defined, 96; toward cloud services, 96
Audience: marketing events and, *160*
Audits: defined, 119
Authentic trust: naive trust *vs.,* 307
Authority: governance of medical practice and, 302
Availability: of cloud services, 95
Availability bias, 414
Average daily receivables: formula for, *224*
Ayurvedic medicine, 15

Baby boomers: aging of, 379; marketing the medical practice and, 156; millennials and, in healthcare workforce, 296; retirement of, 24
Background checks, 241
Backup: with cloud computing, 95
Bad debt: bronze and silver plans and, 173; charity care and, managing correctly, 190; charity care *vs.,* 222; defined, 29
Balanced Budget Act of 1997, 18; Medicare Advantage and, 184
Balance sheet(s), *214,* 223; components of, 216–17; defined, 216; example, *219*
Bargaining stage: in change process, 252
Barnard, Christiaan, *6*
Bass, Bernard, 284
BayCare Clinic, LLP: hack and data breach, *101*
Baylor Teachers College, *6*
Baylor University: early applications of managed care at, 178
Behavior: defined, 4
Behavioral economics: changing patient behavior and, 376, 413–16
Behavioral theory, 281
Beliefs: organization development and, 249; shifting values and, 383
Benchmarks and benchmarking: formulas and ratios for, *224*; performance, important financial metrics and, 223
Benefits: employment arrangement and, *46,* 46–47; for exempt and nonexempt employees, 247; new and enhanced, 266; nonsalary, 47; policies and procedures for, 248–49

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Bennis, Warren, 249, 284
Berwick, Donald, 398
Best Buy: Atrium Health partnership, 69
Bias, 236; conscious and unconscious, 262; decision traps and, 413, 414; reducing, data use and, 339
Biden, Joe, 5
Big Data, 375
Billboards: as example of low-involvement advertising media, 160
Billing: fraudulent, 120; integration of practice and, 43; No Surprises Act and, 124; regulation of, in medical practices, 120–21; review and management of claim denials and, 190; Stark, anti-kickback statute and, 119; systems, 223
Biomedical model, 383
Biomedicine, 411
Bioterrorism, 359–60; Category A agent category, 359; Category B agent category, 360; Category C agent category, 360
Bird flu (H5N1): collaborative emergency management and, 368
Blackmail: as a data breach issue, 98
Blogs, 137
Blue Cross, *6*
Blue Cross Blue Shield, 179; precursor to, 178
Blue Cross Blue Shield Association, 166
Board of directors, 40, 45; governance of medical practice and, 302; not-for-profit organizations and, 45
Bonuses: avoidance of double taxation and, 217; nonphysician providers and, 230
Brainstorming, 138, 335
Breakeven analysis, 143; advantages/disadvantages of, *144*; formula for, 144; results of, 144, *145*
Breakeven point: defined, 144
Bronze plan, 172; average medical deductible, combined with medical and prescription drug deductibles, 2023, *174*; deductibles under, *vs.* through an employer, 173; healthcare exchanges, 172; percentage of insured patient's costs covered by, 172
Budgeting process, 209–14; budget cycle, 210, *211*; components of, *212,* 212–14; effective, importance of, 209; flexible, 211; incremental, 210; methods of, 210–11; precision in, 211; zero-based, 210
Budget(s), 223; capital, *212,* 214; cash, *212, 213–14*; expense, *212,* 213; operating, *212,* 214; purpose of, 210; revenue, *212,* 213; statistical, 212, *212*; strategic plan elements for, 209
Bundled payments: defined, 170; policy mapping and, 150
Buprenorphine, 366
Burnout, 66, 267–71, 303; COVID-19 pandemic and, 26; decreasing, suggestions for, 268, 271; interpretations of Maslach Burnout Inventory, *270*; Maslach Burnout Inventory, *269–70*; physician, administrative burden and, 192; physicians and, 267, 321; provider health and, 268; reasons for, 267; staff, COVID-19 and increase in, 68
Bush, George W., *6*
Business decision-making: training specific to dyad-managed practices and, 288
Business income protection, 125
Business intelligence: data management and, 82
Business liability insurance, 125
Business licenses, 109–10
Business property insurance, 125

CAM. *See* Complementary and alternative medicine (CAM)
Cameron, William Bruce, 1
Cancer, 19; epigenetics and development of, 395
Capital: defined, 44
Capital budget, *212,* 214
Capital investment, analysis of, 143–51; breakeven analysis, 143, *144, 145*; determining financial viability of investment, 143; internal rate of return analysis, 143, *144,* 148; net present value analysis, 143, *144,* 145–48, *146*; payback analysis, 143, *144,* 145
Capitated health insurance: health maintenance organizations and, 53
Capitation, 168, 180
Car allowances, 47
Care coordination: PCMHs and, 56
Care management and support: PCMHs and, 55
Carter, Rosalynn, 279
Case, Steve, 401
Case management, 181
Casey, Patrick, death of, 346
Cash accounting system, 208

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Cash-basis accounting, 208–9
Cash budget, *212,* 213–14
Cash flow: defined, 145; prediction of, 213
Cash flow statement, *214*; example, *219*; features in, 216
Cause-and-effect diagrams, 334
CCA. *See* Consolidation Appropriations Act (CCA)
C-corporations: in medical practice taxonomy, *43*; taxation issues for, *111*
CDC. *See* Centers for Disease Control and Prevention (CDC)
CDHPs. *See* Consumer-directed health plans (CDHPs)
Centers for Disease Control and Prevention (CDC), 8; on average number of visits per person to a medical provider, 393; on bioterrorism agent categories, 359; chronic disease as defined by, 19; on chronic diseases, 20; collaborative emergency management and, 368; emergency management resource websites, 356; Reach 2010 coalition project sponsored by, 398
Centers for Medicare & Medicaid Services (CMS), 8, 17, 80, 120; Center for Consumer Information & Insurance Oversight website, 109; framework for Quality Payment Program, 195; MACRA updates and, 195; "Regulations & Guidance" web page, 108; website, 198
Centerwell Senior Clinic (Humana), 69
CER. *See* Cost-effectiveness research (CER)
Certificate of need (CON): defined, 124
Certificate-of-need laws, 124–25
Certification: defined, 3; licensure *vs.,* 13–14; of medical coding specialists, 189; of PCMHs, 55–56; for physician assistants, 11. *See also* Licensing and licensure
Certified Professional Coders (CPCs), 120, 189
CERT program. *See* Community Emergency Response Team (CERT) program
CF. *See* Conversion Factor (CF)
Challenges facing medical practices, 16–30; ACA and other legislation, 18; changes in US population, 24; chronic disease, 19–20; cloud of anxiety and, *30,* 30–31; complexity of healthcare environment, 30; cost of care, 17–18; determinants of health, 29; digital transformation, 25; disease burden, 19; financial constraints, 26; graying of America, 24; health coverage changes, 29; lack of coordinated system of care, 21; nontraditional providers, 25; number of people with chronic conditions, 20–21; organizational structure changes, 29; patient safety and quality concerns, 23–24; perfect storm metaphor and, 16–17, *17*; provider-directed care, 22–23; reimbursement paradigm shift, 27–28; rising consumerism, 21; scientific and technological change, 30; value and quality issues, 28; workforce issues, 25–26
CHAMPVA program: percentage of population covered by, 174
Change: adapting to, xvii; anticipating emotions surrounding, 252–53; assessing gaps in readiness for, 253; demographic, 379; medical practices and rate of, 379; organizational, 251; practice conundrum, 14–15, *15*; recognizing and embracing need for, xvi; reinforcing, by adopting new standard work processes, 254–55; resistance to, 250, 318; scientific and technological, 30; social, 15; sustainable paradigm of care and, 2. *See also* Forces of change
Change management, 141, 250–58; influencer model for change, 258; IT adoption in practices and, 98; PAST change model, *251,* 251–55, 258
Channels of communication, 137
Charge capture, 189
Chargemaster (or charge description master), 208
Charity care: bad debt and, managing correctly, 190; bad debt *vs.,* 222
Chart of accounts, 208, 223
ChatGPT: potential advantages/disadvantages of, 390–91
Check-in. *See* Patient contact: check-in
Checklists or check sheets: for quality improvement, 333
Chronic diseases (chronic illnesses), 16; common, 20; cost and magnitude of, 394–98; defined, 19, 55; epigenetics and, 395–96; management of, 181, 296; rise of, 19–20, 20–21; upstreaming and, 396–98
Cigna, 166
CINs. *See* Clinically integrated networks (CINs)
Civic organizations, 304

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Claims: against assets, 217; denials, review and management of, 190; financial metrics and, 221; submission and processing of, to payers, 190
Claims made coverage, medical malpractice insurance and, 126
Clayton Act, 114
Climate change, xv, 366–67; human health and impact of, 367
Clinical innovation: adoption of, empirical evidence on, 378, *378*
Clinical integration, 53–55; aims of, 54–55; essential features of, 55
Clinically integrated networks (CINs), 198
Clinical pathways: characteristics of, 323
Clinical services: integration of, 43
ClinicalTrials.gov, 378
Clinician's (or provider's) pen: metaphor for prescribing/referral power, 4, 9, 176
Clinton, Bill, 121
Closed-panel HMOs, 177
Closeout/reflection: in project management process, *153*
Cloud: description of, 95
Cloud breaches, 361
Cloud computing: advantages/disadvantages with, 95; medical practice(s) and, 94–96
Cloud of anxiety, *30,* 30–31
Cloud service providers, potential for errors and, 96
Clutter reduction, Lean and, 327
CMS. *See* Centers for Medicare & Medicaid Services (CMS)
Coaching: employee development and, 249
Code of Hammurabi, 4, *5*
Codes: diagnostic, 30
Coding: billing regulation and, 120; Current Procedural Terminology, 190; ICD-10, 189; ICD-11, 189; proper, importance of, 175–76
Coding specialists, 189
Coinsurance, 171; ACA, healthcare exchanges and, 172; defined, 170. *See also* Copayments; Deductibles; Health insurance premiums
Collaboration: fostering culture of, 308
Collaborative emergency management, 368; examples of, 368; medical practices and, 368
Collins, Jim, 282
Commercial insurance: ACA and, 171–75; malpractice laws and regulations and, 123; private, 170–71
Commercial payers, 166; contract law and, 113
Committees: governance of medical practice and, 302–3
Common Procedural Terminology codes, 169
Commonwealth Fund, 8, 318, 365
Communication: as cornerstone of good care, 249, *250*; diversity, inclusion, and, 261; emergency preparedness plan and, 353; fostering culture of, 308; in project management, 151–52; in project management process, *153*; strategic planning process and, 135, *135*
Communication plan: developing, steps in, 136–37
Communication styles: training specific to dyad-managed practices and, 287
Community-based primary care: promise of, 383–84
Community-based rating system: underwriting and, 169
Community Clinic at Walgreens, 69
Community Emergency Response Team (CERT) program, 358
Community events: as example of high-involvement advertising media, 159
Community health, 283
Community health centers: underserved areas and, 398, *399,* 400
Community Psychiatry Management, LLC (Mindpath Health): hack and data breach, *101*
Comparables: appropriate, IT system selection process and, 92
Compensation: employment arrangement and, *46,* 46–47; for exempt and nonexempt employees, 247; governance of medical practice and, 303. *See also* Nonprovider compensation; Physician compensation
Competition: cooperation *vs.,* xvii; for employees, wage and price controls and, 170–71
Competitive strategies: strategy formulation process and, 136
Competitors: market assessment of, 143
Complementary and alternative medicine (CAM), 15, 411–13; common forms of, 411; consumer spending on, in US, 411–12; legal analysis of issues around, 412–13; specialties most likely to recommend use of, 412

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Complementary medicine: defined, 411
Compliance, 223; effective communication and, 249, *250*
Comprehensive health insurance: demand for healthcare and, 167
Computed tomography, 30
CON. *See* Certificate of need (CON)
Concierge practices, 407
Confirmation bias, 414
Conflict: civil, laying groundwork for, 151
Conflict management, 260; five different styles of, 258
Conflicts of interest: governance and, 305
Conscientiousness: organizational, 294
Consolidation: of medical practices, 29
Consolidation Appropriations Act (CCA), 185
Conspiracy of silence, 292
Consumer analysis: in situational 2 x 2 matrix, 154, *155*
Consumer-directed health plans (CDHPs), 29, 175
Consumerism: marketing the medical practice and, 159; rising, 16, 21
Contingency theory, 281
Continuing education benefit, 47
Continuous improvement, 328
Continuum of care, 9
Contract law, 113
Contracts: information system, 93; restrictive covenants and, 47–48; terms of, employment arrangements and, 48
Control chart: quality improvement and, 334
Conventional medicine, 411
Conversion Factor (CF): GPCI-adjusted RVUs and, 194
Cooperation *vs.* competition, xvii
Coordinated system of care: lack of, 21
Copayments: defined, 170; managed care and, 178. *See also* Coinsurance; Deductibles; Health insurance premiums
Corporate medical services: site-based, 406
Corporate organizational documents, 110, 112
Corporate practice of medicine: affiliation *vs.* employment models and, 46–50; doctrines, 46
Corporate Practices Act, 18
Corporations: advantages/disadvantages of, 44–45; characteristics of, 44; for-profit, 44–45; laws regulating organization/governance of, 109–10; not-for-profit, 44, 45
Cost behavior, 206–8; charge description master or chargemaster, 208; chart of accounts and, 208; over time, 206, *207*; types of costs, 207
Cost control: physician reimbursement and, 192
Cost control methods in managed care, 180–82; case management, 181; chronic disease management, 181; gatekeeping, 180–81; utilization review and tiered benefits, 182
Cost-effectiveness research (CER): activities of, 388; description of, 382
Cost management: project management and, 152–53
Cost of healthcare: chronic diseases and, 19; clinician's (or provider's) pen and, 4, 9, 176; growth in, challenges related to, 17–18; practice conundrum and, 14–15, *15*
Cost(s): of cloud computing, 95; direct, 207; fixed, 143, 144, *145,* 206, *207*; indirect, 207; IT adoption in practices and, 97–98; project management and, 91, *91*; step-variable, 206, *207*; variable, 143, 206, *207*
Cost shifting: HDHPs and, 167
Council of Teaching Hospitals, 51
Courage, xvii
Covenant: developing dyad management structure and, 285
Covey, Stephen, 284
COVID-19 era, changing landscape of physician practice and, 67–70; decline of independent practices, 67–68; emerging models of medical practice, 68–69; use of telemedicine, 68, 117
COVID-19 pandemic, xv, 0, 4–5, *7,* 316, 347, 362, 363, 382; burnout and, 26, 268; collaborative emergency management and, 368; cyberattacks on healthcare organizations during, 100; decline in life expectancy and, 18; fraud and, 117; Medicaid enrollment provision and, 185; misinformation about vaccines during, 410–11; opioid crisis and, 365; physician employment trends and, 13; security breaches and, 360; telehealth and, 408; United States and disruptions caused by, 386; workforce shortages and, 265
CPCs. *See* Certified Professional Coders (CPCs)
CPT. *See* Current Procedural Terminology (CPT)
Credit: defined, 217

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Creditworthiness: determining, balance sheet and, 217
Criminal background checks, 13, 241
Criminal behavior: cost of, 384
Criminal convictions: reporting to NPDB, 110
Crisis management plans, 308
Criteria list: IT system selection process and, 92
Crossing the Quality Chasm (IOM), 315; healthcare process redesign recommended in, 318–19
Cultural competency: diversity and, 262–63, 379–80
Cultural fit survey, 50
Cultural forces of change, 379–81
Cultural healing beliefs, 380–81
Culture: defined, 50; impact on all aspects of the practice, 50, *51*; organization and, 50–51
Current assets: defined, 217
Current Procedural Terminology (CPT): codes, 30, 190
CVS, 25, 405
CVS MinuteClinics, 69
Cyberattacks, 100, 308
Cyber breaches, 360
Cyber criminals, 99, 360
Cyber insurance, 362
Cybersecurity threats, 360–62; common cyber risks, 361; practice responsibilities in face of a cyberattack, 361–62

Damages: malpractice insurance caps and, 127
Dartmouth Atlas, 8
Darwin, Charles, xv
Dashboards, 82, 222. *See also* Heat maps
Data: administering value-based contracts and, 230; analysis of, 375; breaches of, 98, 99, 362; population health and, 391; for population health management, 85; ransomed, 100; for SWOT analysis, sources of, 139; transformation of, into application, 338, 388–89, *389*
Data analytics: artificial intelligence and, 388–91; quality improvement and, 338–39
Data breaches: careless behavior in medical practices and, 99; reporting, 100–101
Data breach protection insurance, 125
Data collection, processing, and reporting, *80,* 80–81
Data interpretation: foundational interoperability and, 87
Data management: effective medical practice operations and, 81
Data theft, 360
Data warehouse, 212
Days of receivables outstanding: formula for, *224*
Day the Earth Stood Still, The (movie), 77
Debt obligations, 44
Decision making: in practice management model, *10*
Decision support: data management and, 81–82
Decision traps: common, 413
Deductibles, 171; average, for four plan categories for healthcare exchanges, 173; for Bronze and Silver plans, 173; defined, 170; managed care and, 178. *See also* Coinsurance; Copayments; Health insurance premiums; High-deductible health plans (HDHPs)
Defects: Lean and, 326, 333; Six Sigma and, *334*
Demand-side regulation: evolution of managed care and, 178
Deming, W. Edwards, xv, xvi, xvii, 2, 321
Deming Institute, 255
Demographic forces of change, 379
Denial: alcoholic or addicted physicians and, 292
Denials of service, 100
Depreciation, 214
Depression stage: in change process, 252
Determinants of health, 21, *22,* 29
Developing countries: lack of healthcare infrastructure in, 386
Developmental programming: cancer and, 395
Diabetes, 20–21, 85, 181
Diagnosis: artificial intelligence and, 389; technology-assisted, *392*
Diagnostic codes: for reimbursement, 30
Diagnostic imaging, 30
Dialogue: power of, in physician-patient relationship, 397
Dietary therapy, 380
Digital health apps, 404
Digital photography: example of paradigm shift, 27
Digital technology: process improvement with, 86, *87*
Digital transformation, 16, 25
Digitization of healthcare, 381
Direct costs, 207

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Directional strategies: strategy formulation process and, 136
Direct mail: as example of high-involvement advertising media, 159
Disability insurance, 47
Disaster scenarios, special situations, 358–67; bioterrorism, 359–60; climate change, 366–67; cybersecurity threats, 360–62; opioid crisis, 365–66; pandemics, 362–65; terrorism, 358–59
DiSC, 260, 287
Discounted fee-for-service, 168
Discounting future rewards, 415
Discrimination, 298–99; gender-based, addressing, 263–64; health disparities and, 262; interview questions and basis for, 240
Discussion-based emergency preparedness exercises, *357*
Disease. *See* Chronic diseases (chronic illnesses); Infectious diseases
Disease burden: changing, 19
Disease management, 181
Disease registry, 97
Diseases: new, globalization and, 382
Disease threats: new, medical practices and, 368
Disruption: managing, training specific to dyad-managed practices and, 288
Disruptive behaviors: addressing, 291; malpractice cases and, 127; spectrum of, *291*
District of Columbia: Medicaid expansion in, 185
Diversity, 24; cultural competency and, 379–80; dimensions of, *261*; illustrative stories about, 298; inclusion and, 260–62; leadership and issues with, 297–99; of thought, openness to, 299; workforce, 25–26
DMAIC methodology: Six Sigma and, 336
DNA, 395
Doctors of osteopathy (DOs), 14
DOJ. *See* US Department of Justice (DOJ)
Doll, Sir Richard, *6*
"Don't ask, don't tell" policies: abandoning, as part of upstreaming, 397
DOs. *See* Doctors of osteopathy (DOs)
Double taxation: avoiding, 217
DPP II. LLC (Home Care Providers of Texas): hack and data breach, *101*
"Draw-a-pig" exercise: red bead experiment and, 325; variation, QI, and stages in, 323–24, *324*
Drucker, Peter, 39, 50, 165, 233, 288
Drug discovery: artificial intelligence and, 390
Dual eligibility, 185
Dyad leadership agreement: development template for, *286*
Dyad leadership model: in practice management, 284–88
Dyad management structure: developing, 285–88

Eating disorders, 189
Ebers Papyrus, *5*
Ebola virus outbreak, 4, *7,* 347, 363, 368, 382
Ecological and other environmental forces of change, 382
Economic analysis: of new or improved service, 142–43
Economic factors: in PEST analysis, 148
Economic forces of change, 381
Economies of scale, 198; integration and, 59; medical practices and, 44
Education: cultural competency and, 380; emergency management and, *350*; IT system, 77–78; of medical doctors and osteopaths, 14; to promote gender equity, 264. *See also* Training
EEOC. *See* Equal Employment Opportunity Commission (EEOC)
EF-5 tornado (Joplin, Missouri), example of disaster event, 348
Egypt (ancient): practice of medicine in, 4
EHR Incentive Programs. *See* Medicare and Medicaid Promoting Interoperability Programs
Electronic health records (EHRs), 78; complex, burnout and, 267; FHIR standard and, 89; implementation of, policy mapping, 150; installation of new electronic system and, 94; MACRA and, 198; MIPS and, 194
Electronic medical records: interoperability between practice management systems and, 89
Eligibility.com, 160
e-mail, 137; direct ads, as example of high-involvement advertising media, 159; encryption, 362
Emergencies: active shooters in the building, 346; new nature of, 346–49; options for medical practices during, 347–48; scope of, medical practices and, 347

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Emergency department (ED): patients entering healthcare system through, 392
Emergency management, 349–51; education and outreach, *350*; good practices in, 349–50; key dilemma in, 349; learning objectives, 345; phases in, 350–51; resources, websites for, 356, 358
Emergency managers, 355–58; emergency management updates and, 358; role of, description, 355; training and information for, 355
Emergency planning: effective, scenario development and, 348; focus of, 347
Emergency preparedness: exercise methodology, *356*; key dilemma in, 349
Emergency preparedness and emergency management (EP/EM) efforts, 350
Emergency preparedness exercises: discussion-based and operation-based, *357*
Emergency preparedness plans for the medical practice: benefits of, 351; collaborative emergency management and, 368; developing, 351–55; important factors in, 352; measures to take, 352; need for, on two levels, 349; preparedness cycle, 352–53, *353*; selecting/developing, questions related to, 348; THIRA process, steps in, *354–55*; vulnerability analysis and, 352
Emotional intelligence (EQ), 294–95; defined, 294; developing, 295; four critical attributes of, 260; of job applicants, clues to, 239; nursing practice and, 295; traits in, 294–95
Emotional Intelligence: Why It Can Matter More Than IQ (Goleman), 260, 294
Employee benefits, 223
Employee Retirement Income Security Act, 124
Employees: development of, 249–50; exempt and nonexempt, compensation for, 247. *See also* People in the medical practice; Staff; Workforce
Employee satisfaction: risk management program and, 128
Employer-provided health insurance, 170, 174
Employment agreements: contract law and, 113
Employment arrangement, 46–49; benefits and compensation, *46,* 46–47; contract terms, *46,* 48; legally binding, elements of, 49; nonassignability clause, *46,* 49; ownership and, *46,* 47; restrictive covenants and, *46,* 47–48; tail coverage or extended reporting endorsement, *46,* 48
Employment policies and procedures, 247–49; common areas addressed in, 248; formalizing benefit programs, 248–49
Employment process, steps in, 236–41; conduct interviews, 238–41; develop a recruiting plan, 237; develop position description, 236–37; hiring decision and making the job offer, 241; identify needs, 236; implement recruiting plan, 238; prehire health screening and background check, 241; receive and review applications, 238; welcome and onboard the new employee, 241, *242–43*
Encryption, 99
End-of-life care, 21
Energy therapies, 15
Entrepreneurial activities: employment arrangements and, 47
Environmental factors: defined, 29
Environmental toxins: cancer and, 395
Epigenetics, 395–96; cancer and, 395; defined, 395
EQ. *See* Emotional intelligence (EQ)
Equal Employment Opportunity Commission (EEOC), 115
Equipment leasing companies: contract law and, 113
Equity: defined, 114; formula for, 217
Equity of care, 29
Errors: patient safety and quality and types of, 319
Escape Fire (documentary), 398
Essential health benefits provision: ACA and, 172–73
Ethical behavior: professionalism and, 290
Evaluation: strategic marketing process and, 158, *158*
Event marketing: considerations in, 160, *160*
Evidence-based healthcare: clinical pathways in, 323; strategies for, 387–88
Exempt employees: compensation for, 247
Expectations or programs for the practice: governance of medical practice and, 303
Expenditures, 212
Expense budget, *212,* 213
Expenses: defined, 47
Expertise: with cloud computing, 95
Exposure: marketing events and, *160*
Extended reporting endorsement: medical malpractice insurance and, 48

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Fabric of the Human Body, The (Vesalius), *5*
Face-to-face communication: interviews, 238; meetings, 137
Faculty practice plans: in medical practice taxonomy, *43*
Fair Labor Standards Act (FLSA), 247
False Claims Act, 117
Family and Medical Leave Act: provisions of, 115–16
Family First Coronavirus Response Act, 185
Fast Healthcare Interoperability Resources (FHIR) standard, 89
Federal Emergency Management Agency (FEMA), 352, 358, 362, 368
Federal Employees Health Benefits Act, 124
Federalist system, 109
Federal Register, 108
Federal taxation: medical practices and, 114
Federal Trade Commission (FTC), 114
Federation of State Physician Health Programs, 292
Feedback: difficulties related to, 299; giving and receiving, 299–301; negative, guidance on providing, 300; negative but constructive, guidance on receiving, 301; open and honest, 301; positive, guidance on providing, 299–300; positive, guidance on receiving, 301; reduction in variation and, 323; from stakeholders, 308
Fee-for-service: flaws in system, 175–76; policy mapping and, 150; shift to value-based reimbursement, 192
Fee schedules, 169
Fellow of ACHE designation: board certification in healthcare management and, 3
FEMA. *See* Federal Emergency Management Agency (FEMA)
Fentanyl, 365
FHIR standard. *See* Fast Healthcare Interoperability Resources (FHIR) standard
Fibromyalgia, 19
Financial constraints, 26; COVID-19, independent practices, and, 67
Financial data analysis: strategic planning and, 134
Financial engineering, 167
Financial management, *3,* 83, 205–31; in body of knowledge for practice managers, *3*; cost behavior, 206–8; financial statements, 214–17; future of, 231; learning objectives, 205; monitoring financial performance, 217, 220–23; overview, 205–6; physician and other provider compensation, 223, 225–30. *See also* Accounting methods; Budgeting; Budgeting process
Financial metrics, 221–22
Financial performance monitoring, 217, 220–23; benchmarks and important financial metrics, 223; financial metrics, 221–22; metrics and ratios, 221; operational metrics, 222–23; variance analysis, 220
Financial reports/reporting, 223; example of, *218*
Financial statements, 214–17; balance sheet, *214,* 216–17; needed by medical practice, 214, *214*; profit-and-loss statement, 215–16; pro forma, *212,* 214; statement of cash flows, *214,* 216; time frame for, 214
Financial sustainability, 308
Financing healthcare, role and scope of, 166–67
Firewalls, 100, 362
First-curve innovation: strain and transition to second curve, 27–28; volume-to-value shifts, *376*
First-dollar coverage, 170, 171
Fischer-Wright, Halee, 282
Fishbone diagram: quality improvement and, 334
Fitness trackers, 407
Five whys: in Lean, 327
Fixed costs: behavior of, 206, *207*; in breakeven analysis, 144, *145*; defined, 143
Fleming, Alexander, *6*
Flexibility: with cloud computing, 95
Flexible budgeting, 211
Flexner report, *6*
Flowcharts: process, 330, *330*
FLSA. *See* Fair Labor Standards Act (FLSA)
Flu pandemic of 1918, 4
Focused conversation: quality improvement and, 335
Focus groups: quality improvement and, 335
Followers: leaders and, 280, 285, 288, 293, 305
Force field analysis, 141–42; benefits with, 142; future state of the practice template, 141, *141*

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Forces of change, 379–83; cost-effectiveness research, 382; cultural factors, 379–81; demographic forces, 379; ecological and other environmental forces, 382; economic forces, 381; geographic forces, 382; political forces, 381–82; shifting values and beliefs, 383; technological forces, 381
For-profit organizations: advantages/disadvantages of, 44–45; physician compensation example for, 225–27, *228, 229*
Foundational level: of health IT interoperability, 87
Foundation models: in medical practice taxonomy, *43*
Four Ps of marketing, 154, *154*
Fragmented healthcare system: addressing, 4; quality concerns with, 316
Framing bias, 414
Franklin, Benjamin, 345
Fraud: complementary and alternative medicine and, 413; corporations and, 44; cost of, 384; Internet, in medical practices, 100–101, *101*; Medicare, federal laws governing, 116–19
FTC. *See* Federal Trade Commission (FTC)
Function compatibility: lack of, cloud-based services and, 96
Funding source: supply of healthcare professionals and, 168
Future directions and medical practice innovation, 375–416; alternative and complementary medicine, 411–13; behavioral economics and changing patient behavior, 413–16; chronic disease, 394–98; concierge practices, 407; data analytics and artificial intelligence, 388–91; evidence-based healthcare, 387–88; forces of change, 379–83; genomics and precision medicine, *400,* 400–401; global threats and international cooperation, 386–87; imaging and laboratory testing advances, 387; Internet and self-efficacy, 401–2, 404–5; learning objectives, 375; lesson of the ACA, 383; "new era" in medical education, 384; nontraditional providers, 405–6; overview, 375–79; patients' interactions with healthcare providers, 402, 404; population health, 391–94; promise of community-based primary care, 383–84; site-based corporate medical services, 406; social media, 409–11; underserved areas and community health centers, 398, 400; wearables and Internet-based medical services, 407–9; workforce challenges, 384–85
Future workforce: demographic and technological trends and, 271

Galen, *5*
Gallup Healthways Well-Being Index survey, 173
Game theory, xvii
Gaming disorder, 189
Gatekeeping: managed care and, 180–81
Gawande, Atul, 333
Geek Squad, 69
Geisinger Health, 180
Gemba, 327
Gender: life expectancy and, 24
Gender equity, 263–65
Generational issues in the medical practice, 295–97
Generational segmentation: marketing the medical practice and, 156–57
Generation X: marketing the medical practice and, 156
Generation Z: marketing the medical practice and, 157
Gene regulation: development of cancer and, 395
Genetic Information Nondiscrimination Act, 116
Genetic mapping and testing, 400
Genome: costs per, 400, *400*
Genomics: precision medicine and, 400–401
Geographic forces of change, 382
Geographic Practice Cost Index (GPCI), 194
Geriatricians: critical shortage of, 385
Geriatrics: training in, 385
Global threats: international cooperation and, 386–87
Global travel: spread of infectious diseases and, 4, 386
Glucose monitors, 407
Goals: culture and, 50, *51*; defined, 9; financial statements and, 214; physician compensation and, 225; setting, in talent management process, 244, *244*; SMART, 134; strategic alternatives and, 136

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Goethe, Johann Wolfgang von, 279, 375
Gold plan, 172; average medical deductible, combined with medical and prescription drug deductibles, 2023, *174*; healthcare exchanges, 172; percentage of insured patient's costs covered by, 172
Goleman, Daniel, 260, 294
Good to Great (Collins), 282
Gordian knot metaphor, for unsolvable problems, 376
Governance, 50; defined, 8; effective, in complex healthcare environment, 307–8; importance of, relative to increased scrutiny, 305; IT, 96–98; mission, vision, and values and, 40, *41*; organizational dynamics and, 302–5; regular reviewing of process for, 304; structure, robust, developing, 308
Governing bodies: governance of medical practice and, 302; mission, vision, and values statements and, 303; record-keeping activities of, 303
Government health insurance programs, 183–86; dual eligibility, 185; Indian Health Service, 186; Medicaid, *184,* 184–85; Medicare, 183–84, *184*; Medigap coverage, 184; TRICARE, 186
Government payers: contract law and, 113
GPCI. *See* Geographic Practice Cost Index (GPCI)
Grapevine: as informal channel of communication, 137
Gratitude, practicing, 268
Graying of America, 24. *See also* Aging population
"Great double cross," 66–67
Great man theory, 280
"Great Resignation": COVID-19 pandemic and, 265
Great Society, 183
Gross collection rate: formula for, *224*
Group meetings, 137
Group practices, 8, *9,* 43

Hacking, 98, 99, 361; Internet fraud in medical practices and, 100–101, *101*; large healthcare hacks, 2022, 100, *101*
Harassment: gender-based, addressing, 263–64
Hart-Scott-Rodini Act, 115
Harvey, William, *5*
HDHPs. *See* High-deductible health plans (HDHPs)
Healing practices: Indigenous, 380
Health: determinants of, 29
Healthcare: apps, 25; as barometer of US society, 1–2; digital transformation of, 25, 381; evidence-based, 387–88; extensive regulation of, in US, 107; financing, role and scope of, 166–67; policy mapping in, examples of, 149–50; "quad functions" of, managed care and, 179–80; second-curve innovation in, 27
Healthcare delivery: Internet, self-efficacy, and, 401, 402; Triple Aim for, *7*
Healthcare delivery system: aging of workforce and, 271; conundrum in, 14–15, *15*; digital transformation of, 25, 381; medical practice as fundamental to, 2
Healthcare employment: percentage of American workforce in, 234
Healthcare environment: complexity of, 30
Healthcare exchanges: ACA and levels of plans available, 172
Healthcare Financial Management Association: website of, 108
HealthCare.gov, 172
Healthcare industry: change in, embracing, xvi
Healthcare Information and Management Systems Society (HIMSS): interoperability defined by, 87; website of, 108
Healthcare organizations: contract law and, 113; cultural competency and, 263, 380; cyberattacks on, during COVID-19 pandemic, 100; in healthcare system hierarchy, *40*
Healthcare providers: practice performance and, 10
Healthcare reform, 376; physician involvement and, 39; political forces and, 381. *See also* Affordable Care Act (ACA)
Healthcare systems: hierarchy, 40, *41*; practice ownership by, 12
Healthcare workforce: future, 271; top concerns of, 266
Health coverage, types of, 170–75; HDHPs, 171; health reimbursement accounts, 171; health savings accounts, 171; private commercial insurance, 170–71
Health disparities: reducing, diversity and inclusion and, 262
Healthful behaviors: engaging in, 271

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Health information exchanges (HIEs): completeness of patient records and, 85; defined, 85; patient information integration in, 85, *86*; patient records, clinical content integration and, 85
Health Information Technology for Economic and Clinical Health (HITECH) Act, 78, 80, 116, 150
Health insurance, 47; changes in coverage, 29; concepts related to, 168–70; private payer system for, 166
Health insurance exchanges (HIEs), 172
Health Insurance Portability and Accountability Act (HIPAA), *6,* 116; defined, 78; enactment of, 121; policy mapping and, 150; privacy breach management, 122; purpose of, 124; sharing of patient health information and, 121–22; violations of, 98, *99,* 100, 122
Health insurance premiums: hidden overutilization price and rise in, 176; rising cost of, 167; tax deductibility of, 171. *See also* Coinsurance; Copayments; Deductibles
Health Insurance Trust, 183
Health insurers: filing a health statement, increase in, 166
Health literacy, 381
Health Maintenance Organization Act: prepaid plans and, 179
Health maintenance organizations (HMOs), 53; closed panel, 177; open panel, 177
Health Net, 166
Health outcomes: improved, diversity and inclusion and, 261
Health plans: COVID-19 and involvement of, in medical practices, 69
Health Professional Shortage Area program, 398
Health reimbursement accounts, 171
Health Resources and Services Administration (HRSA), 398
Health savings accounts (HSAs), 171
Health screening: prehire, 241
Healthy communities movement: role of physician group practices in, *399*
Heart disease, 19, 20
Heat maps: of key metrics, *222,* 222–23
Herbal remedies, 15, 380, 381
Herjavec Group, 100
Hersey and Blanchard's situational leadership, 281
Heuristics: defined, 413
HHS. *See* US Department of Health and Human Services (HHS)
Hickson, Gerald, 290, 291
HIEs. *See* Health information exchanges (HIEs)
High-deductible health plans (HDHPs), *7,* 167, 171, 188, 405, 409
High-involvement consumption: healthcare services and, 159
Highmark, 166
HIMSS. *See* Healthcare Information and Management Systems Society (HIMSS)
Hindsight bias, 414
HIPAA. *See* Health Insurance Portability and Accountability Act (HIPAA)
Hippocrates, *5,* 21
Hippocratic Oath, xvi
Hip replacements: access issues and, 14; example, case management and, 181
Hiring: decision making around, 239, 241; for inclusion, 299; new staff, 234, 268. *See also* Employment process, steps in; Recruiting
Histogram: quality improvement and, 335
History of medicine and medical practice, 4–5, *5–7,* 7
HITECH Act. *See* Health Information Technology for Economic and Clinical Health (HITECH) Act
HIV. *See* Human immunodeficiency virus (HIV)
HMO Act, *6*
HMOs. *See* Health maintenance organizations (HMOs)
Homeland Security Exercise and Evaluation Program (HSEEP): phases in, *356*
Horizontally integrated organizations, 58
Hospital admissions: ratio of office visits to, 393
Hospital beds in US, 18
Hospitals: COVID-19 and consolidation of, 68; COVID-19 and increase in physicians employed by, 69–70; cybersecurity threats and, 360–61; for-profit, 45; practice ownership by, 12, *12*; teaching, 14
HRSA. *See* Health Resources and Services Administration (HRSA)
HSAs. *See* Health savings accounts (HSAs)
HSEEP. *See* Homeland Security Exercise and Evaluation Program (HSEEP)
Huddles, 321
Humana, 166

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Human genome: sequencing of, *6,* 400
Human immunodeficiency virus (HIV), 4, 20
Human resources, 83; emergency preparedness plan and, 353
Human resources management, *3,* 233–71; in body of knowledge for practice managers, *3*; burnout, 267–71, *269–70*; change management, 250–58; conflict management, 258, 260; diversity and inclusion, 260–65, *261*; employee development, 249–50; employment, recruiting, and hiring process, 236–41; employment policies and procedures, 247–49; future workforce, 271; introduction, 234; learning objectives, 233; reward and recognition, 265; talent management, 243–45, 247; terms for the people in the practice, 234–35; workforce shortages, 265–67
Hurricane Hugo (North Carolina), 348
Hurricane Katrina, 4, *7,* 346, 348, 349, 382
Hydrocodone, 365

ICD. *See* International Classification of Diseases (ICD)
ICD-10-CM: move to ICD 11 from, 30
ICD 11, 30
Identity fraud: medical, 100
Identity theft, 98, 360
IDSs. *See* Integrated delivery systems (IDSs)
IHI. *See* Institute for Healthcare Improvement (IHI)
IHS. *See* Indian Health Service (IHS)
Illness: US healthcare system and focus on, 175
Imaging, 83; advances in, 387; analysis, artificial intelligence and, 389
Imhotep, *5*
Immediate gratification bias, 413
Immigration: as aspect of current challenges, 24; policies, 381
Implementation: IT system selection process and, 93
Incentives: changing patient behaviors and, 415
Inclusion: diversity and, 260–62; hiring for, 299; illustrative stories about, 298; leadership and issues with, 297–99
Income: tracking monthly, 216
Income statement, *214*; example of, 215, *215*
Incorporation: states and variation in rules for, 113
Incremental budgeting, 210–11
Incrementalism: abandoning philosophy of, 376
Indemnity plan, 169
Independent contractors, 50
Independent practice associations: in medical practice taxonomy, *43*
Independent practices: COVID-19 and decline of, 67–68
Indian Health Service (IHS), 186
Indigenous healing practices, 380
Indirect costs, 207
Industrial accidents, 386
Industrial Age, 401
Infectious diseases: climate change and spread of, 367; global travel and transmission of, 4, 386; outbreaks of, 347
Inflation, 176
Influencer model for change, 258, *259*
Influencer: The Power to Change Anything (Patterson et al.), 258
Influenza, 19, 347; collaborative emergency management and, 368; pandemic of 1918, 4; table top exercise, 364–65
Information age, 401
Information management: model, 82, *82*; process for, data collection, processing, and reporting in, *80,* 80–81
Information systems: culture and, 50, *51*
Information technology (IT): integration of managed care functions and, 176; learning curve, 78, *78*; learning objectives, 75; meaningful use initiative and, 78–81, *79*; value-based care and, 89–90
Information technology industry, 25
Information technology systems: as backbone of modern medical practice, 76; continuum of integration, *80*; education and training related to, 77–78; governance of, 96–98; learning objectives, 75; performance and, 76–77; purpose and characteristics of, 76, *76*; readiness assessment and, 96; slow adoption rate for, 97; steps in selection process, 91–94; user interface, 77; value-based care and, 89
Initiation: project management and, 152
In-network: defined, 170
Innovation: investment in, 308; second curve and adoption of, *377*; stakeholders and adoption of, 377

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Installation of electronic systems: failures in, common reasons for, 94
Institute for Healthcare Improvement (IHI), 8, 255; "The Seven Spreadly Sins," *332, 333*; Triple Aim, *7,* 319–20, *320*
Institute for Health Policy and Innovation, 8
Institute of Medicine (IOM), 8, 17; *Crossing the Quality Chasm,* 315; *To Err Is Human,* 316
Insurance: concepts, 168–70; against risk, types of, 125–26
Insurance companies: contract law and, 113
Insurance industry, 25
Insured, 168
Insurer, 168
Integrated delivery systems (IDSs), 9, 58–60; ACOs *vs.,* 58; aims of, 54; horizontally integrated organizations, 58; increased complexity and, 59–60; joining or developing, elements in, 54; in medical practice taxonomy, *43*; pros and cons of integration, 59; services or entities in, 58; vertically integrated organizations, 58
Integrated practices: defined, 39–40
Integrated system, *9*
Integration of medical practices: choices related to, 44
Integrative medicine, 15, 411
Integrity: authentic trust and, 307; organizational conscientiousness and, 294
Interactive maps, 402
Interest: defined, 146
Internal practice analysis: in situational 2 x 2 matrix, 154, *155*
Internal rate of return (IRR) analysis, 143; advantages/disadvantages of, *144*; formula for, 148
Internal Revenue Code (IRC), 124; private inurement doctrine and, 116; section 501(c)(3) of, 45, 116
Internal Revenue Service (IRS): not-for-profit organizations and, 45
International Classification of Diseases (ICD): description of, 189; move from ICD-10 to ICD-11, 189
International cooperation: global threats and, 386–87
International law, 109
Internet, 381; cloud services and, 95; as example of low-involvement media, 160; healthcare and impact of, 15; self-efficacy and, 401–2, 404–5; wearables and, 407–9
Internet ads, banners, and paid postings: as example of high-involvement advertising media and, 159
Internet-based providers, 25
Internet of Things attacks, 361
Interoperability: defined, 77, 87; health IT, levels of, 87–88; IT system and lack of, 98; promoting, 89; system integration and, 88–89
Interpretation services, 380
Interprofessional medical education, 384
Interviews, conducting, 238–41; overview, 238–39; possible candidate interview questions, 239–40; questions employers should never ask, 240; questions the applicant might ask, 240–41
Inventory: defined, 217; Lean and, 325
IOM. *See* Institute of Medicine (IOM)
IRC. *See* Internal Revenue Code (IRC)
IRS. *See* Internal Revenue Service (IRS)
Ishikawa diagrams, 334
IT. *See* Information technology (IT)

Jetsons, The, 408
Job applications: receiving and reviewing, 238
Job boards, 238
Job description: developing, 236–37
Job needs, identifying, 236
Job offer: making, 241
Job requirements: employment arrangement and, 47
Jobs, Steve, 27
Job sharing, 267
Johnson administration: Great Society initiative and, 183
Joint Commission, The: Accreditation Standards, 150
Joint ventures: in medical practice taxonomy, *43*
Journal of the American Medical Association, 385
Junger, Sebastian, 17
Jurassic Park, xvii
Jurisdiction: regulatory/legal, 109

Kaiser Family Foundation, 8, 185
Kaiser Permanente, 166, 180
kaizen (continuous improvement), 328
Kawakita, Jiro, 138

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Kidney disease, 20
Kindig, David, 391
King, John, 282
"Knowledge hoarders," 282
Kodak: example of paradigm shift in, 27
Kolff, Willem Johan, *6*
Kotterman, James, 284
Kubler-Ross, Elisabeth, 252

Laboratory testing: advances in, 387; and results, 83
Labor laws, 115–16
Laennec, Rene, *5*
Languages other than English: cultural competency and, 379
Large employers: COVID-19 and involvement of, in medical practices, 69
Law firms: healthcare, consulting about regulation changes, 109
Law(s): antitrust, 114–15; certificate-of-need, 124–25; contract, 113; federal, governing Medicare fraud and abuse, 116–19; labor, 115–16; malpractice, 123
Leaders: amoral, 292; billing practices and, 120; followers and, 280, 285, 288, 293, 305; learning objectives, 279; requirements for successful medical practice and, 31, *31*; tribal culture and, 282–83; trust in medical practice and, 282
Leadership: assessing success of, 307; basics and theories of, 280–83; characteristics of, *284*; defined, 279; diversity and inclusion issues for, 297–99; five levels of, applicable to medical practice, 282; installation of new electronic system and, 94; learning objectives, 279; management *vs.,* 283–84; managerial, 281; mission, vision, and values and, 288–90; morality and, 292; participative, 280; situational, 281; styles, operation of medical practice and, 280; training specific to dyad-managed practices and, 287; transactional, *281,* 292, 293; transformational, 281, *281,* 292, 293, *293*; tribal, 282; as a unique skill, 285
Leadership challenges, 26–30; complexity of healthcare environment and, 30, 307–8; defining value and, 28; determinants of health and, 29; health coverage changes and, 29; organizational structure changes and, 29; reimbursement paradigm shift, 27–28; scientific and technological change and, 30
Leadership styles, 292–93, *293*
Lean, 321, 325–33; five whys in, 327; Six Sigma compared with, 337, *337*; six Ss in, 327–28; "True North" concept in, 10; types of waste in, 325–26; visual management and, 327
Lean project, conducting, 328–33; define the problem, 329; determine the present circumstances, 330; implement the improvement, 331; introduce the project, 328; introduce the project, form a team, 329; launch the Plan-Do-Sudy-Act cycle, 330–31, *331*; reflect on the process, 331–33
Lean Six Sigma, 321
Learning: lifelong, 3, 8, 271, 387
Legal structure of organization: governance of medical practice and, 302–3
Lending institutions: contract law and, 113
Lewin, Kurt, 141
Lewin's leadership styles, 280
Liability: defined, 216
Licensing and licensure: business, 109–10; certification *vs.,* 13–14; complementary and alternative medicine and, 413; defined, 13; of medical professionals, 110; nursing profession and, 385; of physicians, 13–14. *See also* Certification
Life expectancy: healthcare and increase in, 24; in US, *vs.* in other countries, 18
Lifelong learning, 3, 8, 271, 387
Lifestyle diseases, 21
Lifestyle issues: cost of care and, 383
Limited liability corporations (LLCs): in medical practice taxonomy, *43*; taxation issues for, *111*
Listening to patients, power of, 397
Lister, Joseph, *5*
LLCs. *See* Limited liability corporations (LLCs)
Logan, David, 282
Longevity, healthcare services needs and, 379
Long-term assets, 217
Long-term liabilities, 217
Loss: stages in dealing with, 252
Low-involvement consumption: healthcare services and, 159
Lupus, 20
Lyme disease: reported cases of, 367, *367*

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MACRA. *See* Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)
Macroenvironment: in situational 2 x 2 matrix, 154, *155*
Magnetic field therapies, 15
Magnetic resonance imaging (MRI), 30
Maine: Lyme disease in, 367
Mainstream medicine, 411
Malicious traffic, 361
Malpractice: defined, 123; insurance, tail coverage for, *46,* 48; RVU, payment calculation under Medicare PFS and, 193
Malpractice coverage: supply and location of healthcare professionals and cost of, 168
Malpractice insurance: coverage limits for, 127; medical, forms of, 126
Malpractice liability: complementary and alternative medicine and, 413
Malware (malicious software): defined, 361; protection, 100
Managed care, 29, 176–83; certificate-of-need rules and, 178; core features of, 176–77; cost control methods in, 180–82; efficiencies and qualifications of, 182–83; evolution of, 178–79; inefficiencies in, 182, 183; integration of the quad functions, 179–80; prepaid plans and the HMO Act, 179; risk sharing and, 179; transformed delivery of healthcare and, 176; types of plans for, 177–78
Managed care homes: patient-centered medical homes *vs.,* 181
Managed care organizations (MCOs), 178, 180; ACOs as foundation for, 180; provider panel and, 178; quad functions and, 179; utilization review and, 182
Management: characteristics of, *285*; defined, 284; effective, in complex healthcare environment, 307–8; leadership *vs.,* 283–84; transformational leadership and, *293*; as a unique skill, 285
Management by Strengths Survey, 260, 287
Management decisions: payment sources and, 167–68
Management service organizations: in medical practice taxonomy, *43*
Managerial leadership, 281
Market analysis: in situational 2 x 2 matrix, *155*
Market approach: to healthcare provision, 381
Market assessments: conducting, 143
Market-entry strategies: strategy formulation process and, 136
Marketing, 154–60; advertising *vs.,* 155; in cycle of practice development, 133, *134*; defined, 154; foundation of, 158–59; four Ps of, 154, *154*; healthcare, dramatic changes in, 155; high-involvement *vs.* low-involvement consumption, 159; integration of practice and, 43; learning objectives, 133; media selection and promotion, 159–60; of medical practice, 155, 156–57; tactical and strategic nature of, 158, *158*
Marketing events: considerations for, *160*
Marketing plan: components of, 157; executive summary, *157*; situational analysis two-by-two matrix, 154, *155*
Market research: conducting, strategic planning and, 134
Maslach Burnout Inventory: abbreviated, *269–70*; interpretations of, *270*; provider health and, 268
Massage, 380
MCNA Dental: data breach, 98
MCOs. *See* Managed care organizations (MCOs)
MDs. *See* Medical doctors (MDs)
Meaningful use, 196; criteria, three stages of, *79,* 79–80; MIPS, physicians participating in MACRA and, 194; policy mapping and, 150
Media: high involvement *vs.* low-involvement consumption and, 159; selection, promotion and, 159–60
Medicaid, 16, 17, 18, 49, 172, 173, 183, 184–85, 193, 382; ACA and expansion of, 109, 185; COVID-19 pandemic and enrollment in, 185; creation of, 183, 184; dual eligibility and, 185; False Claims Act and, 117; features of, *184*; fraud and abuse and, 116; introduction of, 52; joint state and federal funding of, 185; malpractice laws and regulations and, 123; medical identity fraud, 100; percentage of population covered by, 174; as third-party payer, 166
Medical deductibles. *See* Deductibles
Medical device companies, 25
Medical doctors (MDs), 14
Medical education, 7; "new era" in, 384
Medical errors: as leading cause of death, 316
Medical examining board, 13

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Medical Group Management Association (MGMA), 3, 121, 124, 198, 223, 303, 304; dyad leadership model study, 285; leadership and management training through, 286; online job boards, 238; standard chart of accounts developed by, 208; website of, 108
Medical groups: financial systems maintained by, 223
Medical home. *See* Patient-centered medical homes (PCMHs)
Medical identity fraud, 100
Medical information: exponential growth of, 388
Medical malpractice insurance: forms of, 126
Medical malpractice payments: reporting to NPDB, 110
Medical Mutual of Ohio, 166
Medical Practice Act, *6*
Medical practice information systems, practical aspects of, 90–102; artificial intelligence, 101–2; cloud computing and the medical practice, 94–96; hacking and Internet fraud in medical practices, 100–101, *101*; installation failures, common reasons for, 94; IT governance and, 96–98; security and privacy issues, 98–100; selecting a system for the practice, 90–91; steps in system selection process, 91–94
Medical practice(s): AI integrated into, ethical and privacy concerns, 390; antikickback statute and, 119; antitrust laws and, 114; artificial intelligence and, 101–2; billing regulation and, 120–21; burden of regulatory requirements and, 124; challenges facing, 16–26; cloud computing and, 94–96; cloud of anxiety in, 30–31, *31*; consolidation of, 29; conundrum facing, 14–15, *15*; COVID-19 and emerging models of, 68–69; cultural competency in, 379–80; culturally inclusive, 262–63; cyber criminals and, 360; dimensions of, 8–9; diversity and inclusion in, improving, 260–62, 297–99; divided, avoiding, 280; emergency categories faced by, 347; federal and state taxation on, 114; for-profit ownership *vs.* not-for-profit ownership of, 70; as fundamental component of healthcare delivery system, 2; gender equity in, 263–65; general structure of, 42, *42*; generational issues in, 295–97; governance of, areas of responsibility for, 302; "great double cross" and, 66; hacking and Internet fraud in, 100–101, *101*; history of medicine and, 4–5, *5–7,* 7; improving professionalism in, 290; IT governance and, 96–98; labor laws and, 115; learning objectives, 1; legislation and direction of, 18; levels of leadership applicable to, 282; licensing of, 110; marketing for, 155, 156–59; nonphysician practitioners found in, *235*; number of services provided in, 19; ownership of, *12,* 12–13; people in, terms used for describing, 234; as "professional collegial organizations," 50; public health and role of, 394; relationship to stakeholders, 41, *42*; revenue cycle for, *187*; seismic shift in paradigm of, 27; size and scope of, growth in, 60; standard work processes in, 322; Stark law and, 119, *120*; strategic planning process for, 135, *135*; structures, simple to complex, 8, *9*; taxonomy of, *43,* 43–44; training provided by, 287; trust in, building, 282; upstreaming and, 396–97; variation of IT in, 76–77. *See also* Challenges facing medical practices; Future directions and medical practice innovation; Practice management
Medical Practices Act, 123–24
Medical professionals: licensing of, 110; special organizational forms for, 112–13
Medical records, 83–86; centrality of, in medical practice, 83; information in, 83–84; maintenance and safekeeping of, 83; management of, completeness challenge in, 84–85; off-site storage of, 348; retention of, 122–23
Medical records regulations, 121–23; HIPAA, patient health information, and, 121–22; HIPAA privacy breach management, 122; retention of medical records, 122–23
Medical Reserve Corps (MRC), 348
Medical specialists, 11
Medical specialties: list of, partial, *13*
Medical specialty societies: practice management information through, 121
Medical staff, 234. *See also* Employees; Staff
Medical supply companies: contract law and, 113

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Medical technology, 7
Medical training, 14
Medicare, 16, 18, 26, 49, 53, 172, 183–84, 193, 382, 383; creation of, 183; dual eligibility and, 185; early rhetoric and debate around, 383; features of, *184*; introduction of, 52; as large, open-access insurance plan, 178–79; malpractice laws and regulations and, 123; Part A, 183; Part B, 184, 196; Part C (Medicare Advantage), 179, 184; Part D, *7,* 184; percentage of population covered by, 174; as third-party payer, 166
Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), 16, 18, 165, 194–98; emphasis on emotional intelligence and, 260; enactment of, 194; keeping up with developments related to, 198; new fee updates, 194; requirements under, 197–98; significance of, for medical practices, 194
Medicare Advantage (Part C), 179, 184
Medicare and Medicaid Promoting Interoperability Programs, 80
Medicare fraud/abuse, federal laws governing, 116–19; anti-kickback statute, 117, *118,* 119; False Claims Act, 117; Stark law, 117, *118,* 119, *119, 120*
Medicare Physician Fee Schedule, 192–93
Medicare reimbursement, 26
Medicare Shared Savings Program (MSSP), 53; accountable care organizations and, 195–96; criticisms of, 195–96; three tracks within, 195
Medicine: advancing gender equity in, 264–65; alternative and complementary, 15, 411–13; COVID-19 and change in practice of, 67; integrative, 15; major events in history of medical practice and, 4–5, *5–7,* 7; malpractice in, 123; osteopathic, 14; personalized, AI and, 390; precision, 400–401, *402*; second-curve, 90; unprecedented revolution facing, xv
Medigap coverage, 184
Medscape website: Practice Management & Strategy page of, 121
Meetings, conducting, 305–7; ending the meeting, 306; follow-up tips, 306–7; ground rules for, 139; before the meeting, 305; tips for, 306
Memos, 137
Mental health disorders, ICD-11 and diagnoses for, 189
Mental health issues: primary care environment and, 384
Mental illness: professionalism and, 292
Mentoring: employee development and, 249–50; training specific to dyad-managed practices and, 288
Mergers and acquisitions, 60–66; checklist, *61–66*; dangers for patients, 60, *60*; defined, 60; medical practices, antitrust laws and, 115
Merit-Based Incentive Payment System (MIPS), 16, 194; practitioners participating in, 196; timeline for, 196
MERS, 363
Messaging: marketing events and, *160*
Methadone, 366
Metrics: categories of, 221; disadvantages of, 322; key, heat map of, *222,* 222–23; population health management and, 90
MGMA. *See* Medical Group Management Association (MGMA)
mHealth (mobile health industry), 25
Microsoft Excel, 143, 148
Millennial generation: baby boomers and, in healthcare workforce, 296; marketing the medical practice and, 156–57; in the medical practice, 296–97
Mindfulness meditation, 268
MIPS. *See* Merit-Based Incentive Payment System (MIPS)
Misinformation: social media and spread of, 410–11
Mission, 41, 135; aligning practice members with, 289; culture and, 50, *51*; in cycle of practice development, 133, *134*; financial statements and, 214; governance of medical practice and, 96, 303; governance process and, 40, *41*; leaders and, 280; leadership and, 288–90; organization development and, 249; physician compensation and, 225; in practice management model, *10*; strategic alternatives and, 136; strategic marketing process and, 158, *158*; training specific to dyad-managed practices and, 287
Mission statement, 41; developing, 289; governance of medical practice and, 303; leadership and, 288

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Mitigation phase: in emergency management, 350
Molina Healthcare, 166
Monopolies: and antitrust law, 114
Moral hazard, 167; fee-for-service system and, 175
Morality: leadership and, 292
Morbidity: changing disease burden and, 19
Morrison, Ian, 27
Mortality: changing disease burden and, 19
Motion: Lean and, 326
Motorola Corporation, 335
MRC. *See* Medical Reserve Corps (MRC)
MRI. *See* Magnetic resonance imaging (MRI)
MSSP. *See* Medicare Shared Savings Program (MSSP)
Multigenerational workforce, 25–26
Multiple sclerosis, 20
Multispecialty entities, 8, *9*
Must-have criteria list: IT system selection process and, 92
Muttispecialty group practices: key characteristics of, 44

Naive trust: authentic trust *vs.,* 307
Naltrexone, 366
Nash, John, xvii
National Academy of Sciences, 17
National Association of Insurance Commissioners, 166
National Center for Complementary and Integrative Health (NCCIH), 15, 411
National Committee for Quality Assurance (NCQA), 8, 55
National Council on Aging, 296
National Incident Management System, 362
National Institutes of Health (NIH), 315; All of Us research program, *403*; Precision Medicine Initiative Cohort Program, 401
National Patient Safety Goals, 150
National Practitioner Data Bank (NPDB), 13, 110
Native American cultures: healing practices within, 380
Natural disasters, 308, 382, 386
Navigation apps, 402
NCCIH. *See* National Center for Complementary and Integrative Health (NCCIH)
NCQA. *See* National Committee for Quality Assurance (NCQA)
Needs assessment: IT system selection process and, 92
Negligence: corporations and, 44
Net present value (NPV): formula for, 145–46
Net present value (NPV) analysis, 143; advantages/disadvantages of, *144*; of electrocardiogram, calculation of, *146,* 146–48
Net value of the practice: balance sheet and establishment of, 217
New England Journal of Medicine, 23
New Hampshire: Lyme disease in, 367
Newsletters, 137
Newspaper ads: as example of high-involvement advertising media, 159
NIH. *See* National Institutes of Health (NIH)
Nodes of influence analysis: quality improvement and, 334
Nominal group technique, 138
Nonassignability clause: employment agreement and, *46,* 49
Nonexempt employees: compensation for, 247
Nonphysician providers: compensation for, 229–30; types of, in medical practice, *235*
Nontraditional providers, 16, 25, 405–6
Normal curve, 336
North Carolina: Medicaid expansion in, 185
No Surprises Act, 124
Not-for-profit organizations: advantages/disadvantages of, 45
NPDB. *See* National Practitioner Data Bank (NPDB)
NPs. *See* Nurse practitioners (NPs)
NPV. *See* Net present value (NPV)
Nurse practitioners (NPs), 9, 12, *12,* 385; patient care provided by, 11; training for, 11
Nurses: shortages of, 265
Nursing practice: emotional intelligence and, 295
Nursing profession: future workforce and, 384–85

Obesity, 21
Objectives: establishing, strategic marketing process and, 158, *158*
Occupational Safety and Health Administration (OSHA), 115
Occurrence coverage: medical malpractice insurance and, 126

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Office of Inspector General (OIG): market-based physician compensation standards, 225
Office of the National Coordinator for Health Information Technology (ONC), 89, 198
Officers and directors insurance, 125
Office visits: ratio of hospital admissions to, 393
OIG. *See* Office of Inspector General (OIG)
Omnibus Budget Reconciliation Act of 1989, *6*
Onboarding new employees: process for, 241; sample checklist, *242–43*; training specific to dyad-managed practices and, 288
ONC. *See* Office of the National Coordinator for Health Information Technology (ONC)
Oncogenes, 395
On Death and Dying (Kubler-Ross), 252
One Medical, 69
Online engagement tools: patient activation and, 404
Open-panel HMOs, 177
Operating budget, *212,* 214
Operational metrics, 222–23
Operation-based emergency preparedness exercises, *357*
Operations: in practice management model, *10*
Operations investments financing statements, *214*
Operations management: in body of knowledge for practice managers, *3*
Opioid crisis, 365–66
Organizational change, 251
Organizational conscientiousness, 294
Organizational dynamics: defined, 302; governance and, 302–5
Organizational governance, *3*; in body of knowledge for practice managers, *3*
Organizational structure: changes in, 29
Organization development, 249
Organization for Economic Co-operation and Development (OECD), 18
Organization management: project management and, 152
Organizations: culture and, 50–51; four main interrelated components in, 2
Orthodox medicine, 411
OSHA. *See* Occupational Safety and Health Administration (OSHA)
Osteopathic medical schools, 14
Osteopathic medicine, 14
Outcomes: behavioral economics and, 414; effective communication and, 249, *250*; poor quality and lack of focus on, 318
Out-of-network: defined, 170
Out-of-pocket costs: for healthcare, 166; maximum, ACA and plans through health exchanges, 172
Outside independent expertise: IT system selection process and, 92
Overconfidence bias, 413
Overprocessing: Lean and, 326
Overproduction: Lean and, 325
Overutilization: reducing, cost-effectiveness research and, 382
Ownership: COVID-19 and emerging models of, 68–69; employment arrangement and, *46,* 47; physician compensation and, 215; planning form of medical practice and, 45
Oxycodone, 365

Pandemics, 362–65; collaborative emergency management and, 362, 368; defined, 362; flu pandemic of 1918, 4; preparing for, 363; tabletop exercise, 364–65. *See also* COVID-19 pandemic
Paradigm: defined, 250
Paradigm shift: defined, 27; in organizations, impact of, 27–28
"Parking lot" technique, 139
Participative leadership, 280
Partners: physicians and use of term, 234
Partnerships: in medical practice taxonomy, *43*; taxation issues for, *111*
PAs. *See* Physician assistants (PAs); Professional associations (PAs)
Passwords, 99, 100; security, 362; theft, 361
PAST change model: act component in, *251,* 253–54; prepare component in, *251,* 251–53; sustain component in, *251,* 254–55; transform component in, *251,* 255, 258
Pasteur, Louis, *6*
Patient access: system integration and, 89
Patient activation: chronic disease and, 394–95; online engagement tools and, 404
Patient behavior: changing, behavioral economics and, 413–16
Patient-centered access: PCMHs and, 55
Patient-centered care, 7, 16, 21, 22–23
Patient-centered medical homes (PCMHs), 23, 55–58; certification of, 55–56;

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implementing, questions to ask, 56–57; introduction of, 55; MACRA and, 198; MCOs *vs.,* 181; payment system of, 57; waiting time and, 57–58
Patient-Centered Outcomes Research Institute (PCORI), 388
Patient-centric approach, 308
Patient contact: check-in, 188; provision of services, 189; registration, 188
Patient contract: creating, 415
Patient education: need for, 188
Patient experience: in Triple Aim, 320, *320*
Patient flow process: role of, 86–87; standardization of, 86–87, *87*
Patient health information (PHI): HIPAA and sharing of, 121–22
Patient Protection and Affordable Care Act of 2010. *See* Affordable Care Act (ACA)
Patients: check-in for, 188; informed, 160; process flowchart for visit, *97*; registration of, process in, 188
Patient safety and care, 16; policy mapping and, 150; standards for (IOM and AHRQ), 23–24
Patient satisfaction: improved, effective communication and, 249, *250*; understanding, complicated issues tied to, 234
Payback analysis, 143; advantages/disadvantages of, *144*; formula for, 145
Pay equity, 265
Pay for performance, 169; defined, 28; emphasis on emotional intelligence and, 260
Payments: posting, 190; sources of, management decisions and, 167–68; tiers of, managed care and, 182
Payroll, 223
PCMHs. *See* Patient-centered medical homes (PCMHs)
PCORI. *See* Patient-Centered Outcomes Research Institute (PCORI)
PCPs. *See* Primary care physicians (PCPs)
PCs. *See* Professional corporations (PCs)
PDSA cycle. *See* Plan-Do-Study-Act (PDSA) cycle
Penicillin, *6*
Pension account, 47
People in the practice: terms used for describing, 234–35
Per capita cost component: in Triple Aim, 319, *320*
Perfection, illusion of, 319
"Perfect performance": restrictive covenants and, 48
Perfect storm metaphor: forces of change acting on medical practices and, 16–17, *17*
Performance: of IT systems, 76–77
Performance benchmarks: important financial metrics and, 223
Performance improvement: flaws in thinking about, 316, *316*
Performance management, 243–45
Performance measurement: PCMHs and, 56; revenue cycle, *191,* 191–92; in talent management process, 244
Personalized medicine: artificial intelligence and, 390
PEST analysis: advantages/disadvantages of, 150; factors to consider in, 148–49; strategic planning and, 135
Peter Principle, 286
Pew Research Center: robots and future workforce study, 271; wearables survey, 408
PFS. *See* Physician Fee Schedule (PFS)
PHI. *See* Patient health information (PHI)
Philosophy and objectives: physician compensation and, 225
Phishing, 99, 100, 361
Phone calls: as example of high-involvement advertising media, 159
Physician-administrator dyad leadership model, 285
Physician assistants (PAs), 11, 12, *12,* 385; certification for, 11; growing segment of, 11, *12*
Physician capitation, 168
Physician champion, 329
Physician compensation: allocation of income to practice physicians, *229*; approval for, 226; basic framework for, *227*; compensation formula for, 225; determining, example of, 225–27; implementing plan for, 226–27; income statement, *229*; market-based, standards for, 225; model, part 1, *228*; model, part 2, *229*; model the results, 226; overview, 223, 225; philosophy and objectives and, 225; review the outcomes, 227; select components to be used in formula, 226; stakeholders and, 226; value-based factors and, 231

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Physician Fee Schedule (PFS): Medicare, services paid under, 192–93
Physician-hospital organizations: in medical practice taxonomy, *43*
Physician-induced demand (PID), 108, 167, 176, 182, 194
Physician management companies: in medical practice taxonomy, *43*
Physician-patient relationship: as foundational to US healthcare system, 4
Physician practice management: academic medical centers and, 51–52
Physician practices: distribution of, by size, 2020, *11*; as entry point into healthcare system, 2; hacking incidents and, 100
Physician Quality Reporting System, 196
Physicians, 9, 385; active shooters and deaths of, 345–46; alcoholic or addicted, denial and, 292; average age of, in US, 271; burnout and, 26, 267, 321; in closed-panel HMOs, 177; COVID-19 and prevalence of burnout among, 68; dialogue with patients and, 397; distribution of, by practice ownership, *12,* 12–13; employment of, 46–50; "great double cross" and, 66–67; hospital employment of, 69–70; licensing of, 13–14; needed management and executive skill set for, 285–86; in open-panel HMOs, 177; per capita, in United States, 18; primary care and specialist, total active in US, January 2023, *11*; recruiting, 236; reform and involvement of, 39; reimbursement system for, changes in, 192; scribes and, 78; shortages of, 265; terms used for describing, 234; treating of addiction and role of, 366; urban *vs.* rural areas and, 168
Physicians Advocacy Institute, 12
Physician self-referral law. *See* Stark law
PI. *See* Predictive Index (PI)
PID. *See* Physician-induced demand (PID)
Pie chart: quality improvement and, 335
Place (distribution): in four Ps of marketing, 154, *154*; tactical and strategic nature of marketing in terms of, *158*
Plan and design: in project management process, *153*
Plan-Do-Study-Act (PDSA) cycle: detailed steps in, *256–57*; graph of, *255*; implementing, 254; launching, 330–31, *331*; standard work and, 323, *324*; training specific to dyad-managed practices and, 287
Planning: baby boomers *vs.* millennials and, 296
Platinum plan, 172; average medical deductible, combined with medical and prescription drug deductibles, 2023, *174*; healthcare exchanges, 172; percentage of insured patient's costs covered by, 172
PLLCs. *See* Professional limited liability corporations (PLLCs)
PMSs. *See* Practice management systems (PMSs)
Point-of-service (POS) plans, 177, 178
Policy mapping, 149–51; advantages/disadvantages of, 150; defined, 149; examples of, in healthcare, 149–50; steps in, 149; strategic planning and, 135
Polio vaccine, *6*
Political factors: in PEST analysis, 148
Political forces of change, 381–82
Population health, 391–94; culture of health and, 393, *393*; data and, 391; defined, 391; in Triple Aim, 320, *320*; value-based care, IT, and, 89–90
Population health management, 283; defined, 85; initiatives in, 23; medical practices and, 391–92; PCMHs and, 55; scope of care and, 81; second-curve medicine and, 90; Triple Aim and, 319, 320
Portals, social media, 409
Position description: developing, 236–37
POS plans. *See* Point-of-service (POS) plans
Post: defined, 190
Posting, of payments, 190
Poverty, 395
Power: transactional *vs.* transformational, 281, *281*
PPOs. *See* Preferred provider organizations (PPOs)
Practice conundrum, 14–15, *15*
Practice emergency: defined, 347
Practice Expense RVU: payment calculation under Medicare PFS and, 193
Practice leaders: economic analysis of new or improved services and, 142–43
Practice management: as art and science, 284; broad range of activities within, xvi; certification programs for, 3; conundrum in, 14–15, *15*; cycle of

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practice development, 133, *134*; dyad leadership model in, 284–88; in healthcare system hierarchy, *40*; legal issues in, categories of, 109; lifelong learning and, 3, 8; model of, *10*; revenue cycle and fundamental aspects of, 186; risk assessment and, 125–28; self-efficacy and, 404. *See also* Medical practice(s); Resources for practice management
Practice management systems (PMSs), 81–83; analytical tools in, 82–83; functions in, 81; interoperability between electronic medical records and, 89
Practice managers: billing process and, 120; communication plan and, 137; emergency preparedness protocols and, 347; financial management and, 206; global health issues and, 386; medical record retention regulations and, 123; organizational conscientiousness and, 294; project management skills of, 151–53; six domains of the body of knowledge for, 3, *3*; trust in medical practice and, 282
Practice organizations: characteristics of, 44–45
Practitioners: types of, 9–12
Precision medicine, 375, *402*; genomics and, 400–401
Precision Medicine Initiative Cohort Program, 401
Predictive Index (PI), 260, 287
Predictive modeling: artificial intelligence and, 389
Preexisting conditions: ACA and, 169
Preferred provider organizations (PPOs), 177
Premiums: malpractice insurance, 126. *See also* Health insurance premiums
Prepaid plans: Health Maintenance Organization Act and, 179
Prepare component of PAST change model, *251*; anticipate the emotions of change, *251,* 252–53; assess gaps in readiness, *251,* 253; make the case for change, 251–52
Preparedness phase: in emergency management, 351
Prepayment model, 178
Preregistration, 188
Present value: defined, 143; factors, *147*
Present value factor (PVF): finding, 146
Press release, 137
Prevention: primary, 20; secondary, 20; tertiary, 20
Preventive care services: under ACA, 175; ACOs and, 53
Price (positioning): in four Ps of marketing, 154, *154*; tactical and strategic nature of marketing in terms of, *158*
Primary care physicians (PCPs), 11; as gatekeepers, 180–81; in open-panel HMOs, 177; shortages of, 265; total active, in US, January 2023, *11*
Primary prevention, 20
Prioritization matrix: quality improvement and, 335
Privacy: health information exchanges and, 85; HIPAA privacy breach management, 122; medical practice information systems and, 98–100
Private equity: COVID-19 and involvement of, in medical practices, 69
Private inurement doctrine, 116
Private inurement rules: physician compensation and, 225
Problem solvers: Lean and creation of, 327
Process flowchart, 330, *330*
Process improvement, 321; in practice management model, *10*
Product: in four Ps of marketing, 154, *154*; tactical and strategic nature of marketing in terms of, *158*
Productivity: Quadruple Aim and, 321
Professional associations (PAs), 112; characteristics of, 112–13; federal and state taxation and, 114
Professional corporations (PCs), 112; characteristics of, 112–13; federal and state taxation and, 114; retained earnings and, 114
Professional development, 247
Professional discipline: complementary and alternative medicine and, 413
Professionalism, 290–92; attributes of professionals, 290; balancing system design and, 290, *291*; descriptive characteristics of, 290; improving in medical practice, 290; respected, success and, 307; substance abuse and, 292
Professional limited liability corporations (PLLCs): characteristics of, 112–13; federal and state taxation and, 114

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Profit-and-loss (P&L) statement, 215–16
Profits: defined, 215
Pro forma financial statements, *212,* 214
Profound knowledge: Deming's concept of, 2
Project management, 151–54; constrained relationship in, 91, *91*; in cycle of practice development, 133, *134*; learning objectives, 133; process in, 153, *153*; project integration management and, 152; skills in, 151–53
Promissory notes, 113
Promotion: in four Ps of marketing, 154, *154*; media selection and, 159–60; tactical and strategic nature of marketing in terms of, *158*
Prospective fee schedule, 168
Prostate cancer: patient-centered care and, 22–23
Proton pump inhibitors, 30
Provider agreements: malpractice laws and regulations and, 123
Provider assessment tool, *245–46*
Provider-directed care: concerns related to, 21, 22
Provider healthcare delivery: in healthcare system hierarchy, *40*
Provider-induced demand. *See* Physician-induced demand (PID)
Provider panels: managed care organizations and use of, 178
Provider's (or clinician's) pen: metaphor for prescribing/referral power, 4, 9, 176
Public health: ten greatest achievements in the twentieth century, 394
Public Health Service Act, 124
Public policy: health determinants and, 29; updates, upstreaming and, 397
PVF. *See* Present value factor (PVF)

QI. *See* Quality improvement (QI)
QPP. *See* Quality Payment Program (QPP)
"Quad functions" of healthcare: managed care and integration of, 179–80
Quadruple Aim, 321
Quality: ascertaining, questions related to, 28; practice conundrum and, 14–15, *15*; project management and, 91, *91*; quantifying, metrics for, 28; and safety, improvement in, 317–19
Quality and process improvement: training specific to dyad-managed practices and, 287
Quality circles: use of, 337–38
Quality improvement (QI): PCMHs and, 56; processes in, 321–22; terminology related to, 321; tips for sharing results from improvement work (IHI), *332*; tools for, 333–35; variation and, 322–25
Quality management: project management and, 152
Quality management in the physician practice, 315–39; data analytics, 338–39; introduction, 315–16; learning objectives, 315; Quadruple Aim, 321; quality and safety improvement, *316,* 316–19; quality improvement processes, 321–33; quality improvement tools, 333–38; Triple Aim and, 319–20, *320*
Quality of care: governance of medical practice and, 304
Quality Payment Program (QPP): MACRA and replacement of, 194
qui tam provision, in False Claims Act, 117

Radio ads: as example of low-involvement media, 159
RAND Corporation: comprehensive insurance study, 167; future workforce study, 271; quality study, 317
Randomness bias, 414
Ransomware, 98, 361
RBRVS. *See* Resource-based relative value scale (RBRVS)
Readiness assessment: governance of medical practice and elements of, 96–97
Real property lessees: contract law and, 113
Reason, James, 333
Reciprocity: medical licensing and, 13
Recognition. *See* Reward and recognition
Record-keeping: emergency management plan and, 353; governance of medical practice and, 303
Recovery phase: in emergency management, 351
Recruiting: developing plan for, 237; physicians, 236; training specific to dyad-managed practices and, 288
Recruiting plan: implementing, 238
Red bead experiment, 321–22; "draw-a-pig" exercise and, 325; objective in, 322
Reflection: IT system selection process and, 93–94; Lean process and, 331–33; in project management process, *153*

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Reform. *See* Healthcare reform
Regional health information organizations (RHIOs): establishing and managing, 85
Registration process, 188
Regulation(s): of billing, in medical practices, 120–21; healthcare legislation and, 18; of healthcare supply, 167; medical records, 121–23
Regulatory burden: COVID-19 and increase in, 67
Regulatory issues: checking sources related to, 108–9; compliance with regulatory requirements, 308; corporate organizational documents, 110, 112–13; federal and state taxation, 114; increasing regulatory burden on medical practices, 124; introduction, 107–9; jurisdiction, 109; laws regulating organization/governance of corporations, 109–10; learning objectives, 107; medical records regulations, 121–23
Reiki, 15
Reimbursement: chronic disease and, 394, 395; claim denials and, 190; complementary and alternative medicine and, 413; diagnostic codes for, 30; paradigm shift in, 27–28; payment reform and, 397–98; shift from fee-for-service to value-based, 192; system for physicians, changes in, 192; tiered benefits and, 182; vagaries and peculiarities of system for, 167–68
Relationship management: emotional intelligence and, 260, 295
Relative value units (RVUs): calculating, formula for, *194*; Medicare PFS and, 193; physician compensation and, 227
Reliability: variability of, with cloud computing, 95
Remote patient care, 271
Renewal: Lean project and, 333
Representation bias, 414
Request for proposal (RFP): IT system selection process and, 92
Resistance to change, 318; force field analysis of, 141, *141*; overcoming, 135
Resource-based relative value scale (RBRVS), *6,* 193–94; defined, 193; payment formula, *194*
Resources: in healthcare system hierarchy, *40*
Resources for practice management, 7–8, 429–31; data sets and databases, 431; foundations and other not-for-profit organizations, 431; government agencies, 431; journals and magazines, 429–30; professional associations and organizations, 430–31
Response phase: in emergency management, 351
Restrictive covenants, *46,* 47–48
Retail health clinics, 405
Retail pharmaceutical industry, 25
Retained earnings, 114
Retirement: of baby boom generation, 24; delaying, 296
Retirement savings account, 47
Retreats: governance of medical practice and, 303
Retrospective payment, 168
Return on investment: defined, 146
Revenue: defined, 28
Revenue budget, *212,* 213
Revenue cycle, 165–66, 186–92; bad debt and charity care, 190; coding and claims, 189–90; failures in, 191; for a medical practice, *187*; patient check-in, 188; patient registration, 188; performance measures for, *191,* 191–92; scheduling and initial patient contact, 187–88; two fundamental aspects of practice management and, 186
Revenue expenses profits statements, *214*
Revenue-to-income ratios: budgeting, 210
Reward and recognition: Lean and, 333; of practice members, 265
RFP. *See* Request for proposal (RFP)
RHIOs. *See* Regional health information organizations (RHIOs)
Risk: defined, 168; insurance as protection against, 168
Risk and compliance management, *3*; in body of knowledge for practice managers, *3*
Risk and issue management: project management and, 153
Risk assessment, 125–28; coverage limits for malpractice insurance, 127; insuring against risk, 125–26; medical malpractice insurance, 126; risk mitigation programs, 127–28
Risk management plans, 308
Risk mitigation: PEST analysis and, 149; programs, 127–28
Risk sharing: managed care and, 180
Robertson-Patman Act, 114

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Robert Wood Johnson Foundation, 8, 384
Robots, 271
Rogers, Everett, 377
Role theory, 280
Röntgen, Wilhelm Conrad, *6*
Root cause analysis: five whys in Lean used for, 327
Rotary Club, 304
Rules-based access: data breaches and lack of, 99
Rumor mill: as informal channel of communication, 137
Run chart: quality improvement and, 334
Rural communities: community health centers and, 398, *399,* 400; healthcare gaps in, 382
RVUs. *See* Relative value units (RVUs)

SaaS. *See* Software as a service (SaaS)
Safety: improvements in, 316–17; quality and, improvement in, 317–19. *See also* Patient safety and care
Safety step: in six Ss technique in Lean, 328
Safe work environment: civil conflict and, 151
Salaries: employment arrangement and, *46,* 46–47. *See also* Compensation
Salk, Jonas, *6*
Sanger Clinic: Reach 2010 coalition project and, 398; role of physician group practices in the healthy communities movement and, *399*
SARS, 363
Scalability: cloud services and, 95
Scatterplot: quality improvement and, 334
Scenario development: emergency planning and, 348
Scheduling: initial patient contact and, 187–88
Scientific change, 30
Scientific medicine, 411
Scientific revolution, 7
Scope: project management and, 91, *91,* 152
Scope creep: preventing, 152
Scope of practice: complementary and alternative medicine and, 413
S-corporations: in medical practice taxonomy, *43*; taxation issues for, *111*
Scribes, 78
"Scrubbers": claims preparation and, 222
Secondary prevention, 20
Second curve: adoption of innovation and, 377, *377*; example of, 27; volume-to-value shifts, *376*
Second-curve medicine: population health management and, 90
Security: breaches of, 100, 360; cloud services and, 95; medical practice information systems and, 98–100; software, 100
Selective perception, 414
Self-awareness: conflict management and, 258; emotional intelligence and, 260, 294
Self-efficacy: Internet and, 401–2, 404–5; practice management and, 404
Self-management: emotional intelligence and, 260, 294–95
Self-referrals: gatekeeping and, 180; Stark law and, 119
Self-reflection: cultural competency and, 380
Self-serving bias, 414
Semantic interoperability: of health IT interoperability, 88
Senior management, 40
Service availability: with cloud computing, 95
Service corporations: in medical practice taxonomy, *43*
Services: new, economic analysis of, 142–43
Set step: in six Ss technique in Lean, 328
"Seven Spreadly Sins" (IHI), *332, 333*
Severability clauses: employment contracts and, 49
SGR methodology. *See* Sustainable growth rate (SGR) methodology
Shared risk: managed care and, 180
Shared savings plan, 169
Shareholders, 44
Sharing results from improvement work: tips for, *332*
Sherman Act, 114
Shewhart, Walter, 335
Shine step: in six Ss technique in Lean, 328
Shock and denial stage: in change process, 252
Sick care, well care *vs.,* financial realities around, 175
Silos: multiple, mergers and acquisitions and, 60, *60*
Silver plan, 172; average medical deductible, combined with medical and prescription drug deductibles, 2023, *174*; deductibles under, *vs.* through an employer, 173; healthcare exchanges, 172; percentage of insured patient's costs covered by, 172
Simmons, Sandra S., 205
Simpson, James, *5*
Single-specialty groups, 8

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Site-based corporate medical services, 406
Situational 2 x 2 matrix: marketing plan and, 154, *155*
Situational leadership, 281
Situation analysis: strategic marketing process and, 158, *158*
Six Sigma, 321, 333, 335–37; development of, 335; DMAIC methodology and, 336; "good enough" represented in, 333; graphic representation of, *334*; Lean compared with, 337, *337*
Six Ss technique: Lean and, 327–28
Slack, 409
Small practice groups and partnerships, 29
SMART goals: strategic planning and, 134; talent management and, 244, *244*
Smartphones: healthcare apps for, 25
Smart watches, 407
Smith, Bill, 335
Social awareness: emotional intelligence and, 260, 294
Social change, 15
Social factors: in PEST analysis, 148
Social justice approach: to healthcare provision, 381
Social media, 409–11; medical practices and functions performed by, 409; misinformation and, 410–11; positive and negative effects of, for medical practices, 409–10; privacy breaches and, 122
Social Security Act: section 1877 of, 117; Titles XVIII and XIX of, 183, 184
Softball interviews, 238
Software as a service (SaaS), 94
Sole proprietorships, 44, 110; in medical practice taxonomy, *43*
Solo practices, 8, *9,* 29, 43
Sophocles, 319
Sort step: in six Ss technique in Lean, 327
Sotile, Wayne, 66
South Dakota: Medicaid expansion in, 185
Specialist physicians: total active, in the US, January 2023, *11*
Specialty care: overutilization of, in fee-for-service world, 176
Sridhar, Devi, 363
Staff: contract law and, 113; COVID-19 and burnout among, 68; hiring, 234. *See also* Employees; Workforce
Stakeholders: adoption of innovation and, 377; budget cycle and, 210; cloud services and, 96; defined, 26; emergency preparedness plan and, 347, 351–52; external, 41, *42*; feedback from, 308; force field analysis and, 142; governance of medical practice and, 303; internal, 41; IT system selection process and, 93; leadership and, 281; operational metrics and, 222; physician compensation and, 226; political, 382; relationship of practice to, 41, *42*; in RHIOs, 85; in strategic planning process, 135, *135*; trust in medical practice and, 282
Standardize step: in six Ss technique in Lean, 328
Standard processes: variation and, 322
Standard work: "draw-a-pig" exercise and, 323–24, *324*; PDSA cycle and, 331; processes in medical practices, 322
Stark, Fortney Hillman "Pete," Jr., 117
Stark law: aims of, 117; anti-kickback law compared with, 117, *118*; complying with, 119; designated health services defined by, *119*; general exceptions to, 119, *120*; understanding provisions of, 119
Statement of cash flow, *214,* 216
States: antitrust statutes in, 115; certificates of need and, 124–25; corporate practice of medicine doctrines and, 110; employment laws in, 115; healthcare regulation and role of, 109; health insurance exchanges in, 172; retention of medical records in, 122–23; rules of incorporation and, 113; taxation, medical practices, and, 114
Statistical budget, 212, *212*; revenue budget, *212,* 213
Steering committees: installation of new electronic systems and, 94
Step-variable costs: behavior of, 206–7, *207*
Stock: defined, 114
Strain: healthcare shifts and, 27–28
Strategic plan: governance of medical practice and, 303
Strategic planning, 134–41; choosing a strategic alternative, *135,* 136; in cycle of practice development, 133, *134*; defined, 134; developing a communication plan, 136–38; force field analysis and, 141–42; governance and, *41*; learning objectives, 133; in practice management model, *10*; process for, *135*; in project management process, *153*; SWOT analysis in, 134, 138–41, *140*

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Strategic thinking: Know, Think, Speak, Act techniques for, 151
Strategy: defined, 50, 134
Strengths, weaknesses, opportunities, and threats (SWOT analysis), 150; data for, sources of, 139; defined, 138; exercise, steps in, 140; face-to-face, steps in, 138–40; market assessments and, 143; marketing plan and, 154; matrix, 140, *140*; quality improvement and, 334; strategic marketing process and, 158, *158*; strategic planning and, 134, *135,* 138–41, *140*
Stress management, 268
Stroke Scan Inc.: hack and data breach, *101*
Structural interoperability: of health IT interoperability, 88
Structures and organization, 39–45; characteristics of practice organizations, 44–45; general structure of medical practice, 42, *42*; healthcare system hierarchy, 40, *40*; learning objectives, 39; mission, vision, and values, 40–41, *41*; relationship of practice to stakeholders, 41, *42*; taxonomy of practice models and legal organization, *43,* 43–44
Subsidiary models: in medical practice taxonomy, *43*
Substance abuse: professionalism and, 292
Sullenberger, Captain Chesley "Sully," 351
"Sum sufficient" budgeting approach, 211
Sunk cost errors, 414
Supercomputers, 389
Superstorm Sandy, 382
Supplier-induced demand, 176
Supply and demand: financing healthcare and, 167
Supply-side regulation: evolution of managed care and, 178
Sustainable growth rate (SGR) methodology: MACRA and repeal of, 194
Sustain component of PAST change model, *251*; implement the Plan-Do-Study-Act cycle, *251,* 254, *255*; new standard of work, *251,* 254–55; reinforce change, *251,* 254–55
Sustain step: in six Ss technique in Lean, 328
SWOT facilitator, 138
Syntax, 88
Systemic racism: health disparities and, 262
System integration: in primary care, 88
Systems theory, 2

Tablet computers: healthcare apps for, 25
Tail coverage: for malpractice insurance, *46,* 48
Takt time, 330
Talent management, 243–47; compensation and benefits, 247; performance management, 243–45; process, components of, 244–45; professional development, 247; provider assessment tool, *245–46*; SMART goals and, 244, *244*
Talib, Iman Ali, 75
Taxation: corporate and partnership entities and, *111*; double, avoiding, 217; federal and state, medical practices and, 114; medical practice corporate forms and, 112; planning for form of ownership and, 44
Tax-exempt organizations: advantages/disadvantages of, 45
Teaching hospitals, 14
Team-based care: PCMHs and, 55
Teams: emotional intelligence and, 295; multigenerational workforce and, 297
Technological change, 30
Technological factors: in PEST analysis, 149
Technological forces of change, 381
Technology: changes in, 24; costs, COVID-19 and increase in, 68; healthcare cost, demand and diffusion of, 167; investment in, 308
Telehealth, 271; benefits of, for medical practice, 408; policy mapping and, 150
Telemedicine, 266, 271, 408; COVID-19 and use of, 68; defined, 27; fraud and, 117; physician reimbursement and, 192
Television ads: as example of low-involvement media, 159
Termination provisions: contract terms and, 48
Terrorism: medical practices and likelihood of, 358; theoretical example, 359
Tertiary prevention, 20
Therapeutic touch, 15
THIRA process. *See* Thread and hazard identification and risk assessment (THIRA) process
Third parties: malpractice laws and regulations and, 123

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Third-party access breaches, 361
Third-party payer organizations, 9
Third-party payers, 165, 166, 167, 177; advent of, post-World War II, 51
Third-party payment landscape: changing, 175
Third-party providers: Stark law, anti-kickback statute, and, 119
Third Wave, The (Case), 401
Third Wave, The (Toffler), 401
Thomas-Kilman Conflict Mode Instrument (TKI), 258
Thought, diversity of, 299
Thread and hazard identification and risk assessment (THIRA) process: steps in, *354–55*
Three Rs: Lean project and, 332–33
Tiered benefits: utilization review and, 182
Time: project management and, 91, *91*
Time management: project management and, 152
Time to payback. *See* Payback analysis
Time value of money (TVM), *144*
TKI. *See* Thomas-Kilman Conflict Mode Instrument (TKI)
To Err Is Human (IOM), 316
Toffler, Alvin, 401
Total assets, 217
Total liabilities, 217
Total quality management, 321
Toxins: cancer and, 395–96
Traditional Chinese Medicine, 15, 380
Traditionalists (silent generation): marketing the medical practice and, 156
Traditional medicine, 411
Training: for emergency managers, 355; emergency preparedness, 352; in geriatrics, 385; on Internet security, 99; IT system, 77–78; medical, 14; nurse practitioner, 11; to promote gender equity, 264; specific to dyad-managed practices, 286–87. *See also* Education
Trait theory, 281
Transactional leadership, 292, 293
Transactional power: transformational power *vs.,* 281, *281*
Transatlantic Task Force on Antimicrobial Resistance, 386
Transformational leadership, 292, 293; management and, *293*; results of, *293*
Transformational power: transactional power *vs.,* 281, *281*
Transformative healthcare delivery, *3*; in body of knowledge for practice managers, *3*
Transform component of PAST change model, *251*; define standards, not rules, *251,* 255; feedback and accountability, *251,* 258; guidelines, 255, 258; set expectations, *251,* 255
Transportation: Lean and, 325
Tribal culture: stages in, 282–83
Tribal leadership, 282
Tribal Leadership: Leveraging Natural Groups to Build a Thriving Organization (Logan, King, & Fischer-Wright), 282
TRICARE, 186; percentage of population covered by, 174
Triple Aim, *7,* 319–20, 321, 391; ACOs and, 53; development of, 319; three intersecting elements of, 319–20, *320*
Trojans: in cyberattacks, 361
"True North" concept: in practice management, 10, *10*
Trust: authentic *vs.* naive, 307; effective communication and, 249, *250,* 261; emotional intelligence and, 295; in medical practice, building, 282
Trustees, 40
Tuberculosis, 19, 386
TVM. *See* Time value of money (TVM)
Twentieth century: ten greatest public health achievements of, 394
Type 2 diabetes, 21

UCLA Health: hack and data breach, *101*
Ultrasound, 30
Ulysses contract, 415
Uncertainty, 60; burnout and, 268; clinical, 322
Underserved areas: community health centers and, 398, *399,* 400
Understanding: effective communication and, 249, *250*
Underutilization of people: Lean and, 326
Underwriting, 169
Uninsured/underinsured population, 16; ACA and impact on, 173; healthcare utilization and, 166
UnitedHealthcare, 166

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UnitedHealth Group, 166, 179
United States: aging population in, 379; chronic disease in, 20–21, 394; extensive regulation of healthcare in, 107; geriatrician shortage in, 385; healthcare costs in, 14; health spending in, growth of, 176; impact of COVID-19 pandemic in, 386; lack of coordinated system of care in, 21; medical errors as leading cause of death in, 316; OECD on healthcare system in, *vs.* those in other countries, 18; physicians in, total active, January 2023, *11*; retirement of baby boom generation in, 24; top-performing countries compared with, 318
Upstreaming: chronic disease and, 396–98; defined, 396; practice environment and, 396–97
Urgent care centers, 405, 406
US Bureau of Labor Statistics: workforce shortage projections, 265–66
US Census Bureau, 379, 406; information on Americans' health insurance coverage, 173–74
US Criminal Code, 117
US Department of Health & Human Services (HHS), 98, 101, 388; Health Resources and Services Administration of, 398; "Laws & Regulations" web page, 108; Office of Inspector General, 100, 225
US Department of Homeland Security, 348; Cybersecurity Working Group of the Healthcare and Public Health Sector, 362; emergency management resources website, 358; Medical Reserve Corps and, 348
US Department of Justice (DOJ), 116; antitrust actions brought by, 115
US Department of Labor, 115, 247
US Department of Veterans Affairs, 14, 174
User interface, IT, 77
US healthcare system, 4; as illness, not health system, 175
US Supreme Court, 172
Utilization review: tiered benefits and, 182

VA. *See* Vulnerability analysis (VA)
Vacation pay, 47
Vaccines: COVID-19, *7*; polio, *6*
Valdez, Robert Otto, 317
Value-based care: information technology and, 89–90; policy mapping and, 150
Value-based contracts: administering, 230
Value-Based Payment Modifier, 196
Value-based purchasing: ACOs and, 53; well care and, 175
Value-based reimbursement: shift from fee-for-service reimbursement to, 192; shift from volume-based reimbursement to, 28
Values, 41; culture and, 50, *51*; defined, 23, 28; examples of, 289–90; financial statements and, 214; governance of medical practice and, 96, 303; governance process and, 40, *41*; leadership and, 288–90; organization development and, 249; physician compensation and, 225; in practice management model, *10*; shifting beliefs and, 383; strategic alternatives and, 136
Values statement, 288; developing, 289; governance of medical practice and, 303
Value stream map, 330, *330*
Variable costs: behavior of, 206, *207*; in breakeven analysis, 144; defined, 143
Variance analysis, 223; financial statements and, 220
Variation, 331; quality improvement (QI) and, 322–25
Vendors: IT system selection process and, 88, 92–93
Venture capitalists: COVID-19 and involvement of, in medical practices, 69
Vermont: Lyme disease in, 367
Vertically integrated organizations, 58
Vesalius, Andreas, *5*
Violent crime, 384
Virtual care, 68, 192, 408–9
Virus protection, for IT systems, 100
Vision, 41; culture and, 50, *51*; financial statements and, 214; governance of medical practice and, 96, 303; governance process and, 40, *41*; leaders and, 280; leadership and, 288–90; physician compensation and, 225; planning for form of ownership and, 44; in practice management model, *10*; strategic alternatives and, 136
Vision statement: developing, 289; governance of medical practice and, 303; leadership and, 288
Visual management: Lean and, 327
VitalSmarts, 258
Volume: poor quality and focus on, 317–18

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Volume-based reimbursement: shift to value-based reimbursement from, 28
Volume of service: determining, approaches to, 142–43
Volume-to-value shifts, *376,* 376–77
Vulnerability analysis (VA), 352

Wage and price controls: post-World War II, 170
Wages: future workforce, 271
Wagner, E. H., 55
Waiting time: Lean and, 325, 326; PCMHs and, 57–58
Walgreens, 25, 405
Walmart, 25, 405
Washington, George, 24
Waste: defined, 325; excess healthcare expenditures and, 17; Lean and types of, 325–26
Watchful waiting: prostate cancer and, 22–23
Watson supercomputer: capabilities of, 389
Wearables, 69; Internet-based medical services and, 407–9
Weber's leadership styles, 292
Well-being: cultural healing beliefs and, 380–81; new paradigm of care delivery and, 2
Wellness services: US healthcare system and reduced focus on, 175
Western medicine, 411
Whistleblower protection, 117
WHO. *See* World Health Organization (WHO)
Will to power, 281, *281*
Will to serve, 281, *281*
Wisconsin Health Information Exchange (WISHIN), 86
Workforce: aging, 271; challenges of future, 384–85; culturally competent, employing, 379; multigenerational, 25–26, 296–97; optimum, hiring and managing with care, 268; shortages in, 265–67. *See also* Employees; Staff
Workforce challenges of the future, 384–85; nursing profession, 384–85; training in geriatrics, 385
Work RVUs: payment calculation under Medicare PFS and, 193; physician compensation and, 227, *227, 229*
World Health Organization (WHO), 386; on climate change, 367
World War II, 29; increased funding for medicine in wake of, 51
Wrongful death: corporations and, 44

Zero-based budgeting, 210
Zika virus, *7,* 347, 363, 368, 382
Zoom interviews, 238
Zoonoses: defined and types of, 363; monitoring, 363

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