Patrice L. Spath
Diane L. Kelly

FOURTH EDITION

Applying Quality Management IN HEALTHCARE

A SYSTEMS APPROACH

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AUPHA

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To my lifelong friend and companion, my husband Robert O. Brown.
—P. S.

To Isabella.
—D. K.

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A NOTE FROM DIANE L. KELLY

The quality landscape has changed dramatically since the first edition of *Applying Quality Management in Healthcare: A Process for Improvement* (2003). At that time, the Institute of Medicine reports *To Err Is Human* (1999) and *Crossing the Quality Chasm* (2001) were still relatively new and patient safety was in its early stages. The Premier Hospital Quality Incentive Demonstration, the precursor to today's value-based purchasing initiatives, was just getting started. Transparency was in its infancy.

Fast-forward to today. The concept of systems is widely embraced in healthcare and has become a cornerstone for driving improvements toward achieving the Institute for Healthcare Improvement's Triple Aim. Perverse financial incentives, which punished organizations for reducing utilization by improving care, are being challenged with a wide array of innovative payment models that reward improvements in quality, safety, and health promotion. The numerous and often disparate parts of the US healthcare system are working together to improve the health of populations, not just to care for sick individuals. The quality, safety, and systems concepts discussed in this book have become foundational, essential, and timeless. They may be applied to any type, size, level, or complexity of organizational forms.

I would like to thank the many students whom I have had the privilege to get to know, work with, and learn from as a result of writing and teaching with this text. I would also like to thank my mentor and friend, Dr. Arnold Kaluzny. I am delighted that Patrice Spath is collaborating on this fourth edition so that the book may continue to bring value to future students.

Diane L. Kelly, DrPH, MBA, RN
Principal Consultant
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PREFACE

Several years ago, I partnered with a physician, Dr. William Minogue, to respond to an article in a medical journal that bemoaned the lack of successful patient safety improvement initiatives. The article's authors suggested a new model was needed for conducting patient safety investigations because the current way of doing things was not working. At the time, I was facilitating training workshops for the Maryland Patient Safety Center, where Dr. Minogue was the medical director. We both agreed that a new safety investigation model was not the answer. This belief resulted in our coauthoring an article on the subject for WebM&M, an online case-based forum on patient safety sponsored by the Agency for Healthcare Research and Quality.

Our article began by reminding readers of the insights of Louis Pasteur, who, throughout his career, "insisted that germs were the cause of disease, not the body." Near the end of his life, Pasteur changed his opinion and "declined treatment for potentially curable pneumonia, reportedly saying, 'It is the soil, not the seed.' In other words, a germ (the seed) causes disease when our bodies (the soil) provide a hospitable environment" (Spath and Minogue 2008).

This lesson, discovered by Pasteur so many years ago, has application to all quality improvement activities and is reinforced by the topics covered in this book. The systems in health services organizations must be carefully nurtured to create a hospitable environment for the many tools and techniques of improvement to thrive. If the soil is not properly prepared, the seeds of improvement will not take root or be sustainable. Dr. Diane Kelly, author of the first three editions of this book, was insightful in taking a systems approach to quality improvement. Dr. Kelly understood that preparing the "soil" of the organization is just as important as learning how to use the various quality tools. I am honored to have the opportunity to build on Dr. Kelly's contributions in this fourth edition.

This book is intended for managers—anyone who influences the design of healthcare systems for the purpose of improving quality. It is not necessary to hold the official title of *manager* in an organization to be instrumental in creating and supporting higher-quality services. Many frontline, nonmanagerial clinical and administrative staff members are directly or indirectly involved in

shaping patient care systems and in using improvement techniques to design more efficient, safer processes. Although the word *manager* is used liberally throughout this book, it is not intended to narrow the audience or the purpose. Anyone interested in making improvements in the quality and safety of health services will benefit from the learning in these pages.

Changes from the Third Edition

The emphasis on systems in the third edition is still evident in this fourth edition. What has changed is an expansion of information about quality tools, data analysis techniques, and patient safety. As with all editions of this book, concepts covered in the chapters are supported by real-life examples, illustrations, and thought-provoking end-of-chapter exercises. Some chapters have been added and others reordered. The book is now divided into three major sections instead of two.

Section 1 provides students with the foundational principles of healthcare quality and explains how systems affect an organization's ability to accomplish quality goals. The chapter on the role of policy in advancing quality (chapter 8 in the third edition) was moved to this section so students can better appreciate how external forces affect system behavior and relationships as well as the quality methods used by health services organizations (covered in later chapters). Some of the material relevant to reliability and patient safety covered in this section in the third edition has been moved to a new chapter dedicated solely to the topic of patient safety.

Section 2 contains three chapters designed to illustrate what health services organizations must do to set the stage for success in quality management efforts. Because teamwork and collaboration are essential for advancing healthcare quality, the teamwork chapter at the end of the third edition has been expanded and moved to this section (chapter 8, "Fostering a Culture of Collaboration and Teamwork"). Much of the information from chapter 10 has been moved to chapter 9 ("Measuring Process and System Performance"), and some topics have been shifted to other related chapters.

The nuts and bolts of quality management are found in section 3. The chapters in this section are expansions of topics covered in the third edition. Instructors using the third edition in a quality course indicated the need for more detailed explanations of quality models and the tools and techniques of healthcare quality management. In addition, a new chapter has been added (chapter 10, "Using Data Analytics Techniques to Evaluate Performance"). This chapter covers basic concepts of healthcare data analytics, including how to use various statistical and graphical methods for reporting and evaluating

performance data. Some of these methods were covered briefly in the third edition, and some of the discussion is new to the fourth edition.

Materials on improvement models, project teams, and quality tools are greatly expanded from the third edition and now covered in two separate chapters (chapter 11, "Designing and Implementing Improvements," and chapter 12, "Using Improvement Teams and Tools"). In the third edition, the various topics related to patient safety were dispersed among several different chapters. Now, most of the material concerning patient safety is in a new chapter (chapter 13, "Making Healthcare Safer for Patients"). This chapter is focused entirely on systems issues affecting patient safety and methods for reducing mistakes and preventing patient harm.

Health Administration Press now offers educators the opportunity to build custom textbooks comprising chapters from several different books. To accommodate this service, the chapters in the fourth edition of this book have been written to stand alone as much as possible. Within each chapter, references to material in other chapters have been minimized, or the concepts summarized and repeated when necessary. Where there are linkages between materials in various chapters, instructors are encouraged to point out these relationships because the connections are not as clearly stated as in the third edition.

Resources

Listed at the end of each chapter are companion readings and web resources. Instructors can expand students' learning experience by assigning a companion reading or directing them to explore one or more of the online resources. These readings and websites are particularly useful in the chapter on data analysis techniques, if instructors want to cover more than just basic concepts. The web resources also provide instructors and students with sources of the most current information on relevant quality management and patient safety topics.

Patrice L. Spath, MA, RHIT
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Instructor Resources

This book's Instructor Resources include explanations of the exercises, a test bank, and PowerPoint slides.

For the most up-to-date information about this book and its Instructor Resources, go to ache.org/HAP and browse for the book's title or author names.

This book's Instructor Resources are available to instructors who adopt this book for use in their course. For access information, please e-mail hapbooks@ache.org.

Student Resources

For students, end-of-chapter exercises and web resources are available on this book's companion website at ache.org/books/qualitymanagement4.

Reference

Spath, P., and W. Minogue. 2008. "The Soil, Not the Seed: The Real Problem with Root Cause Analysis." *Perspectives on Safety*. Agency for Healthcare Research and Quality. Published July. https://psnet.ahrq.gov/perspectives/perspective/62/the-soil-not-the-seed-the-real-problem-with-root-cause-analysis.

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The primary person that I must thank is Diane Kelly, author of the first three editions of this book. Her contributions to the learning experience of innumerable students and seasoned professionals have been outstanding. I am also grateful to the many people over the years who afforded me opportunities to share knowledge through my books and journal articles. In particular, I'd like to thank Janet Davis and Audrey Kaufman (the current and former acquisitions managers at Health Administration Press, respectively) and Richard Hill (senior editor at Health Forum, a unit of the American Hospital Association).

SECTION

1

QUALITY MANAGEMENT: A SYSTEMS APPROACH

CHAPTER

1

QUALITY MANAGEMENT FUNDAMENTALS

Learning Objectives

After completing this chapter, you should be able to

- describe the vital role of management in achieving quality patient and client health services;
- differentiate among key healthcare quality characteristics, common approaches to quality improvement, and total quality principles; and
- recognize management practices and traits as organizations mature along the quality continuum.

A mother arrives at the pediatrician's office for her daughter's six-month well-child checkup. As she has for previous checkups, she arrives 10 minutes early. Her daughter's scheduled appointment time of 10:00 am passes and she is still waiting at 11:30 am. The front desk receptionist politely tells the mother that the pediatrician has been called to an emergency, saying, "I'm sure you understand. If it was your child, you would want the doctor to attend to her." Although the mother understands the reason for the delay, this explanation does not change the fact that she has to pick up her son from preschool at noon. The mother asks if her daughter can at least get the immunizations today and have the rest of her checkup at another time. A clinic nurse hurriedly administers the child's immunizations while quietly complaining to the mother that she is often too busy to get a lunch break.

Dissatisfied with the hours wasted at the pediatrician's office and disappointed with the need to return to finish her daughter's checkup, the mother begins to investigate other healthcare options for her children. While the doctor at her current pediatric clinic seems highly trained and knowledgeable, the mother has concerns about the organization in which the doctor practices. The organizational aspects of the pediatric clinic are not meeting the mother's expectations. In the broadest definition, an **organization** is a structured system designed to accomplish a goal or set of goals. In this example, the care providers and office staff are a pediatric health services organization designed to deliver healthcare to children.

organization a structured system designed to accomplish a goal or set of goals

This book focuses on managing the quality of the structured system in which health services are delivered. Like any organization, the structured system in the pediatric clinic is a by-product of numerous variables that affect the design and execution of many interrelated factors. What are the specific goals of the healthcare organization and how are they determined? Does everyone in the organization understand and agree with these goals? How are patient appointments, office workflow, and staff hours scheduled to enable the practice to meet these goals? How are patient and family needs and expectations taken into account? How are clinic employees recruited, hired, trained, and evaluated? Does the pediatrician devote all of her time to the office or does she also have hospital commitments? How is the pediatrician compensated for services? How does reimbursement influence the office structure and work systems? Does the practice operate according to a budget? Does the practice employ an office manager? If so, how is the manager's role defined? How do the pediatrician and the staff communicate with each other and with patients and their families?

These are just some of the questions that influence managerial decisions about how the structured system will operate. In the example, the mother's experience resulted from how her pediatrician's practice addressed such organizational questions. This mother's perception of quality had nothing to do with the quality of the *medical* care. It had everything to do with the organizational quality of the health services. The focus of this text is on managing the structured systems of health-related services—within and between organizations—to provide the highest-quality and safest healthcare.

Why Focus on Managing Systems?

Providing the medical care (e.g., performing cardiac surgery) and producing the service (e.g., maintaining a clean environment) are functions of the clinical and technical professionals. Creating and managing the structured system in which clinical and technical professionals work is the role of management. The manager's perspective and tactics may vary depending on his organizational level (e.g., senior administrative, middle management, frontline supervisory) and his scope of responsibilities (e.g., team, project, department, division, agency, organization-wide). Regardless, all persons holding management responsibilities in an organization are charged with finding ways to carry out, coordinate, and improve the organizational functions.

As illustrated by the mother's experience at the pediatric clinic, patients may not receive the benefits of good medical care when the system of delivery is poorly managed. Quality is not simply the obligation of clinical and technical professionals. The task of achieving quality outcomes from healthcare

organizations is a shared responsibility belonging to those who provide medical care and produce services and the management professionals who oversee the system. Management determines how and what organizational goals are set; how human, fiscal, material, and intellectual resources are secured, allocated, used, and preserved; and how activities in the organization are designed, carried out, coordinated, and improved. The material presented in this book is intended to assist managers in the decision-making processes related to quality and safety in health services organizations.

What Are Quality and Safety?

A widely accepted definition of **quality** as given by the Institute of Medicine (IOM) is this: "The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Lohr 1990, 21). To further clarify the concept of quality, the IOM (2001) identified the **key components of quality care**: safe, effective, patient centered, timely, efficient, and equitable. **Patient safety**, a key component of quality care, is defined as, "freedom from accidental or preventable injuries produced by medical care" (Agency for Healthcare Research and Quality [AHRQ] 2016b).

quality
"the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Lohr 1990, 21)

key components of quality care
quality care is safe, effective, patient centered, timely, efficient, and equitable (IOM 2001)

patient safety
"freedom from accidental or preventable injuries produced by medical care" (AHRQ 2016b)

The way managers in health services organizations define and prioritize quality in the context of their daily responsibilities is often influenced by their own background and experiences. For example, a physician manager may emphasize the importance of achieving optimal patient outcomes through implementation of evidence-based medicine. A nurse manager or pharmacist may stress the importance of interpersonal skills, teamwork, and patient-centered care. A manager with public health credentials may take a population-based approach to improving healthcare quality. Likewise, the educational focus of nonclinical managers may influence the preferred quality definition and priorities. A manager educated in a business school may emphasize operations management, whereas someone trained as an accountant may focus on how quality affects the financial bottom line. A manager with a health services administration background may stress the importance of organizational structures and stakeholder relationships.

These examples illustrate the assortment of perspectives and preferences about health services quality and the numerous ways quality concerns may be expressed in healthcare organizations. The multifaceted nature of quality poses several additional questions and challenges for healthcare managers: What is quality in healthcare? Which approach is best? How are the approaches related?

Since the early 1970s, Avedis Donabedian's work has influenced the prevailing medical paradigm for defining and measuring quality. In his early

writings, Donabedian (1980) introduced the two essential components—the technical and the interpersonal—that comprise quality medical care. He also identified three ways to measure quality (structure, process, outcome) and the relationships among them. Donabedian (1980, 79, 81–83) described the measures in the following way:

process of care "a set of activities that go on within and between practitioners and patients" (Donabedian 1980, 79)

structure "the relatively stable characteristics of the providers of care, of the tools and resources they have at their disposal, and of the physical and organizational settings in which they work" (Donabedian 1980, 81)

outcome "a change in a patient's current and future health status that can be attributed to antecedent healthcare" (Donabedian 1980, 83)

patient experience a patient's "report of observations of and participation in health care, or assessment of any resulting change in their health" (AHRQ 2016a)

> I have called the **"process" of care** . . . a set of activities that go on within and between practitioners and patients. . . . Elements of the process of care do not signify quality until their relationship to desirable health status has been established. By **"structure"** I mean the relatively stable characteristics of the providers of care, of the tools and resources they have at their disposal, and of the physical and organizational settings in which they work. . . . Structure, therefore, is relevant to quality in that it increases or decreases the probability of good performance. . . . I shall use **"outcome"** to mean a change in a patient's current and future health status that can be attributed to antecedent healthcare. The fundamental functional relationships among the three elements are shown schematically as follows: Structure → Process → Outcome.

For example, in a family medicine group practice, the number and credentials of physicians, nurse practitioners, physician's assistants, nurses, medical technicians, and office staff are considered structure measures. The percentage of elderly patients who appropriately receive an influenza vaccine is considered a process measure, and the percentage of elderly patients who are diagnosed and treated for influenza is considered an outcome measure for this practice. The staff members in the office (structure) influence the ability of the practice to appropriately identify patients for whom the vaccine is indicated and to correctly administer the vaccine (process), which in turn affects the number of patients developing influenza (outcome). If a process measure has a clearly demonstrated link to an outcome, the process measure may be used as a proxy measure for an outcome (Parast et al. 2015)

When the IOM recognized patient-centered care as a key component of twenty-first-century healthcare quality in 2001, the Donabedian model for measuring quality expanded to include patient experience. **Patient experience** measures are a subcategory of outcomes that represent the voice of patients—their "report of observations of and participation in health care, or assessment of any resulting change in their health" (AHRQ 2016a). For example, a family practice clinic may have a good process for identifying patients needing an influenza vaccine and qualified staff to correctly administer the vaccine, yet patients may report their experience to be unsatisfactory if caregivers do not listen to their concerns and adequately answer questions about the vaccination.

While a health services manager can easily become overwhelmed by the complexity and extensive range of views on the topic of healthcare quality, she may also consider this array of perspectives as a vast pool from which to draw quality-related knowledge and lessons.

Creating a Common Understanding of Quality Methods

As with most elements of management, the subject of quality in healthcare organizations has been the object of numerous trends, fads, and attempts at quick fixes. Because departments and professionals with "quality" responsibilities may change their job titles with the latest trend, managers must understand what is behind the label; in other words, they must understand the philosophy and actions used to promote quality in an organization. The first step for managers is to develop a common understanding of quality terminology. Definitions of frequently used terms to describe quality are provided here.

Quality control. Mostly used in the manufacturing setting, **quality control (QC)** encompasses "the operational techniques and activities used to fulfill requirements for quality" (American Society for Quality [ASQ] 2016). In health services, quality control activities usually refer to equipment maintenance and calibration, such as for point-of-care and laboratory testing, imaging machines, and sterilization procedures.

quality control (QC)
"the operational techniques and activities used to fulfill requirements for quality" (ASQ 2016)

Quality assurance. A **quality assurance (QA)** approach is focused on the outputs of a process. Products are inspected after they are produced, and imperfect products are discarded. In some cases, the defect may not be readily noticeable and is replaced at a later time, as with a new automobile warranty. In service organizations fields such as healthcare, defects refer to unsatisfactory or defective outputs from a received service. The quality of the service is inspected after it is received and, if not acceptable, the customer may ask for the service to be repeated. For example, when the customer discovers that a retail pharmacy includes only half the number of tablets in a prescription refill, he asks for the refill to be corrected. Sometimes the service defect is not readily noticeable, as in the case of a surgical sponge left in a patient after an operation. As the patient's condition deteriorates, tests are performed to identify causes of the defective output. The patient must return to surgery for the defect to be corrected.

quality assurance (QA)
actions performed to eliminate defective outputs

Hearing QA and QC used interchangeably when "referring to the actions performed to ensure the quality of a product, service or process" is not uncommon (ASQ 2016).

Quality improvement. A **quality improvement (QI)** approach, also referred to as *continuous quality improvement* (CQI), is focused on the ongoing improvement of processes as a way to improve the quality of the outputs (i.e.,

quality improvement (QI)
"ongoing improvement of products, services or processes through incremental and breakthrough improvements" (ASQ 2016)

reduce the number of defective outputs). Preoperative checklists, sponge counts, and team briefings are examples of operating room process improvements designed to prevent defective outputs or surgical complications. By implementing incremental and breakthrough improvements, QI seeks to produce defect-free outputs and provide consistent high-quality services.

total quality (TQ) "a philosophy or an approach to management that can be char-acterized by its principles, practices, and techniques. Its three principles are customer focus, continuous improvement, and teamwork . . . each principle is implemented through a set of practices . . . the practices are, in turn, supported by a wide array of techniques (i.e., specific step-by-step methods intended to make the practices effective)" (Dean and Bowen 2000, 4–5)

Total quality. The term **total quality (TQ)**, also referred to as *total quality management* or TQM, is often used interchangeably with "QI" and "CQI." This tendency can cause students and managers to be confused by the two related but different concepts. Total quality is "a philosophy or an approach to management that can be characterized by its principles, practices, and techniques. Its three principles are customer focus, continuous improvement, and teamwork . . . each principle is implemented through a set of practices . . . the practices are, in turn, supported by a wide array of techniques (i.e., specific step-by-step methods intended to make the practices effective)" (Dean and Bowen 2000, 4–5).

As shown by this definition, TQ is a strategic concept, whereas CQI is one of three principles that support a TQ strategy. Numerous techniques—including performance management, Six Sigma, and Lean—are available for managers in implementing the principles of CQI on a tactical level and an operational level. A brief description of these techniques is provided in the following section with more detail in subsequent chapters.

performance management "an umbrella term that describes the methodologies, metrics, processes and systems used to monitor and manage the business performance of an enterprise" (Buytendijk and Rayner 2002)

Performance management. The business literature defines **performance management** as "an umbrella term that describes the methodologies, metrics, processes and systems used to monitor and manage the business performance of an enterprise" (Buytendijk and Rayner 2002). Performance management is also referred to as *enterprise performance management* (EPM), *corporate performance management* (CPM), and *business performance management* (BPM).

Six Sigma a rigorous and disciplined process improvement approach using defined tools, methods, and statistical analysis with the goal of improving the outcome of a process by reducing the frequency of defects or failures

Six Sigma. **Six Sigma** is a rigorous and disciplined approach using process improvement tools, methods, and statistical analysis. Its precepts are based on the philosophy "that views all work as processes that can be defined, measured, analyzed, improved and controlled" (Muralidharan 2015, 528). *Six sigma* is a statistical term referring to the goal of achieving zero defects or failures. Six Sigma quality is considered a "rate of less than 3.4 defects per million opportunities, which translates to a process that is 99.99966 percent defect free" (Spath 2013, 125). Although the technique originated in manufacturing, the use of Six Sigma is being encouraged in health services organizations as a way of achieving high reliability (Chassin and Loeb 2013).

Lean (or Lean thinking) an improvement philosophy and set of tools that "is about finding and eliminating waste in all processes" (Black 2016, 6)

Lean. Sometimes called *Lean thinking*, **Lean** "is about finding and eliminating waste in all processes" (Black 2016, 6). This quality philosophy and set of tools, which also originated in manufacturing, is used to remove wasted effort from healthcare processes without compromising quality (Chassin and Loeb 2013). Lean techniques have helped health services organizations

increase patient staff satisfaction, create more efficient processes, lower expenses, reduce patient wait times, improve capacity management, and make many other value-added, customer-focused enhancements (Black 2016). The **Toyota Production System** (TPS) is a common method of applying Lean in health services organizations.

Toyota Production System
a common method of applying Lean in health services, first developed at the Toyota Motor Company

Organizational effectiveness. Several models or definitions of effectiveness in management literature exist, and the meanings are derived from the values and preferences of evaluators (Cameron 2015). From the perspective of TQ, **organizational effectiveness** means accomplishing goals.

organizational effectiveness
the ability to accomplish goals

Change management. Whether quality improvement is aimed at reducing defects, removing wasteful process steps, or achieving better patient outcomes, the work people do in the organization will be modified in minor and sometimes major ways. **Change management** is a "systematic approach that prepares an organization to accept, implement, and sustain the improved processes" (Chassin and Loeb 2013, 481). A structure for managing the changes that result from quality improvement efforts is essential for ensuring that quality does not deteriorate as time passes, staff turnover occurs, and new priorities emerge. Components of this strategy can include human resources planning, financial and resource management, and implementation of a control system that involves measurement and oversight of performance results (McLaughlin and Olson 2012). A phrase often associated with change management is "sustain the gains."

change management
a "systematic approach that prepares an organization to accept, implement, and sustain the improved processes" (Chassin and Loeb 2013, 481)

Exhibit 1.1 provides a summary of the quality-related terms described in this section and the influence these concepts have on the actions of healthcare managers.

Quality management. Continuously improving products and services to achieve better performance is often referred to as **quality management**. In this book, the term *quality management* is used to describe the manager's role and contribution to organizational effectiveness. Quality management, for our purposes, refers to how managers working in various types of health services organizations and settings understand, explain, and continuously improve their organizations to allow them to deliver quality and safe patient care, promote quality patient and organizational outcomes, and improve health in their communities.

quality management
the manager's role and contribution to organizational effectiveness; how managers working in various types of health services organizations and settings understand, explain, and continuously improve their organizations to allow them to deliver quality and safe patient care, promote quality patient and organizational outcomes, and improve health in their communities

Three Principles of Total Quality

Total quality is based on three principles: customer focus, continuous improvement, and teamwork. While these topics are explored in depth in later chapters, a brief introduction to these principles is provided in this section.

EXHIBIT 1.1 Quality-Related Terms

Quality-Related Term	Relevant Manager Actions
Quality control	Fulfill process requirements
Quality assurance	Find and repair faulty processes causing defective outputs
Quality improvement/continuous quality improvement	Incrementally and continuously improve processes
Performance management	Continuously review, evaluate, and improve performance to meet changing customer, stakeholder, and regulatory requirements
Six Sigma	Aggressively improve processes and reduce variation to achieve zero defects
Lean/Lean thinking	Seek better ways to organize human actions and processes to eliminate waste
Total quality/total quality management	Manage using a customer focus, continuous improvement, and teamwork
Organizational effectiveness	Understand and improve the system to achieve goals
Change management	Use systematic methods to transition individuals, teams, and the organization

customer the user or potential user of services or programs

external customer a user outside the organization

internal customer a user inside the organization

stakeholder "all groups that are or might be affected by an organization's services, actions or success" (BPEP 2015, 53)

Customer. A **customer** is defined as a user (or potential user) of services or programs. Patients are customers, as are referring healthcare providers, as well as payers such as patients' family members and health plans (Baldrige Performance Excellence Program [BPEP] 2015).

External customers are the parties outside the organization, and the primary external customers for health services providers are patients, families and partners, clients, insurers and other third-party payers, and communities. An **internal customer** is a user inside of the organization. Internal customers have been described as "someone whose inbox is your outbox." For example, in a hospital, when patient care is handed off from one provider to another at shift change, the incoming provider is considered the internal customer of the outgoing provider. Completing the requisite shift responsibilities in a timely manner, communicating relevant information, and leaving a tidy work space demonstrate one's recognition of coworkers as internal customers.

The contemporary view of quality management expands the concept of "customer" to include stakeholders and markets in which the organization operates. The term **stakeholder** is used to refer to "all groups that are or might be affected by an organization's services, actions or success" (BPEP 2015, 53). In healthcare organizations, key stakeholders may include "customers, the community, employers, health care providers, patient advocacy groups,

departments of health, students, the workforce, partners, collaborators, governing boards, stockholders, donors, suppliers, taxpayers, regulatory bodies, policy makers, funders, and local and professional communities" (BPEP 2015, 53).

customer-focused quality a type of quality in which key patient and other customer requirements and expectations are identified and drive improvement efforts

Customer-focused quality means that key patient and other customer requirements and expectations are identified and drive improvement efforts (BPEP 2015). Defining customers and stakeholders is a prerequisite to determining their requirements and, in turn, to designing organizational processes that meet these requirements.

Continuous improvement. When the manager of an environmental services department in a large hospital picks up something from the hallway floor and throws it away in the nearest trash can, her action exemplifies the principle of continuous improvement. While other hospital employees might walk past the trash, the environmental services manager realizes the importance of being committed to continuous improvement for her department and for the hospital; if at any time the manager sees something that needs fixing, improving, or correcting, she takes the initiative. If managers want to achieve continuous improvement in their organizations, they must demonstrate continuous improvement through their everyday actions.

The principle of continuous improvement may also be expressed through managers' execution of their managerial functions. Managing by fact and depending on performance data to inform decisions is requisite to this principle. Though they might vary according to the nature of the work and the scope of management responsibility, performance data may be reported at various time intervals. For example, a shift supervisor for the patient transportation service in an 800-bed academic medical center watches the electronic dispatch system that displays a minute-by-minute update on transportation requests, indicators of patients en route to their destinations, and the number of patients in the queue. By monitoring the system, the supervisor is immediately aware when a problem occurs and, as a result, is able to take action quickly to resolve the problem. If the number of requests unexpectedly increases, the supervisor can reassign staff breaks to maximize staff availability and minimize response times.

Each day, the supervisor posts the total number of transports performed the previous day, along with the average response times. This way, the patient transporters are aware of the department's statistics and their own individual statistics, which helps the transporters take pride in a job that is typically underappreciated by others in the organization. The daily performance data also enable the supervisor to quickly identify documented complaints and to address them within 24 hours, which in turn increases employee accountability and improves customer relations. On a monthly basis, the department manager and the shift supervisors review the volume of requests by hour of the day to determine whether employees are scheduled appropriately to meet demand.

The manager also reviews the statistics sorted by patient unit (e.g., nursing unit, radiology department) to identify any issues that need to be explored directly, manager to manager. The manager reviews the monthly statistics with his administrator, and the annual statistics are used in the budgeting process. A performance management system such as this promotes **continuous improvement**, which is defined as steady, incremental improvement in the organization's overall performance.

continuous improvement
steady, incremental improvement in the organization's overall performance

Teamwork. When the terms **teamwork** and *quality* are used together, management is usually referring to cross functional or interdisciplinary project teams. Healthcare organizations seeking to make changes in complex processes or activities that involve more than one discipline or work area often use a team approach. Quality improvement is fundamentally a team process in which significant and lasting improvements rely on the "knowledge, skills, experience, and perspectives of different individuals" (Health Resources and Services Administration 2011, 3).

teamwork
a team process involving the "knowledge, skills, experience, and perspectives of different individuals" (Health Resources and Services Administration 2011, 3)

In relation to quality management, managers should also consider teamwork when they carry out functions inherent in the managerial role—in particular, organizational design, resource allocation, and communication. Designing and implementing decision-making, documentation, and communication processes (which ensure individuals and teams have the information they need, when they need it, to make effective and timely clinical and organizational decisions) reflect a manager's understanding of the quality management principles. For example, in one hospital, the manager of the materials management department negotiates with a supplier to obtain surgical gloves at a discounted rate compared with the rate of the current supplier. The decision is made based on vendor and financial input. The first time the new gloves are used, however, the surgeon rips out the fingers of the gloves while inserting his hand. Had the manager embraced the concept of teamwork in her approach to decision making, she would have sought out information and input from the patient care team—the people who actually use the product and know the advantages and disadvantages of different brands of gloves.

Quality Continuum for Organizations

Quality management is not a single event; rather, it is an organizational journey. Progress along the journey may be viewed on a continuum, with one end representing traditional or early attempts at quality and the other end representing more mature approaches (exhibit 1.2). Regulatory, accreditation, and cost-control pressures, as well as consumer activism, are accelerating the quality journey of health services organizations. These external factors are described in more detail in the next chapter.

EXHIBIT 1.2 Quality Continuum for Healthcare Organizations

Less Mature →	Developing	→ More Mature
Quality priorities	Complying with quality requirements of external stakeholders is an operational imperative	Internal quality improvement is one of three or four strategic priorities	Internal quality improvement is the organization's top strategic priority
Quality scope	Internal customers	Internal and external customers and stakeholders	Internal and external customers and stakeholders and the community served
Quality transparency	Key quality measures not reported internally throughout the organization and not reported publicly	Key quality measures reported internally throughout the organization; few reported publicly	Key quality measures reported internally and publicly; reports include benchmark data from best practice organizations
Quality methods	No organization-wide approach to quality improvement	Data-driven, statistical methods used in some improvement initiatives	Managers trained in data-driven, statistical methods that are used for all improvement initiatives
Performance measures	Only measures used are those required by external stakeholders	In addition to measures required by external stakeholders, internal measures are used to evaluate quality priorities of managers	In addition to measures required by external stakeholders, internal measures linked to the quality goals of the organization are used
Information technology (IT)	There is little or no IT support for quality activities	IT supports some quality activities, but many are still paper based	IT support is provided for all quality activities

Source: Adapted from Chassin and Loeb (2013).

Although a healthcare organization may occupy a point anywhere along this maturity continuum, the goal of quality management is to continually strive toward the most mature end of the continuum. An understanding of the quality continuum in health services organizations begins to explain differences in operations and outcomes in organizations that all claim to be "quality organizations," such as

- how an organization can be successful at quality projects but not attain a quality organizational culture;
- why some organizations have adjusted better than others to current oversight practices of regulatory groups and accreditation agencies;
- why implementing clinical practice guidelines does not in itself guarantee healthcare quality;
- why operations management efforts, independent of clinical context, may not yield expected results; and
- why, without leadership's involvement in establishing a quality philosophy and strategy for the entire organization, only pockets of excellence may be found in an organization.

Summary

Achieving organizational effectiveness requires leaders to combine the knowledge of management and quality to understand and improve the organization. This chapter has introduced various terms and approaches to help managers establish a common vocabulary for quality in their organizations. The path to becoming a mature, quality organization is a process characterized by transitions in managerial philosophy, thinking, and action.

Exercise 1.1

Objective: To explore the current state of healthcare quality in the United States.

Instructions:

- Go to the AHRQ website (https://nhqrnet.ahrq.gov/inhqrdr) and find the most current version of the National Healthcare Quality and Disparities report.
- Read the Executive Summary.
- Browse the rest of the report.

- Based on your brief review of this report, summarize the state of healthcare quality and disparities in the United States in one or two paragraphs.

Companion Readings

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Web Resources

Agency for Healthcare Research and Quality: www.ahrq.gov
American Society for Quality: www.asq.org
National Association for Healthcare Quality: www.nahq.org
Public Health Foundation: www.phf.org

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CHAPTER

2

ROLE OF POLICY IN ADVANCING QUALITY

Learning Objectives

After completing this chapter, you should be able to

- describe the types of oversight organizations that influence healthcare quality;
- recognize how public and private policies encourage quality improvement at the organizational, community, and national levels; and
- identify resources to maintain current knowledge about policy changes, new initiatives, and updates on current initiatives.

The most visible or well-known topics of healthcare policy tend to be those related to funding, payment, and access. Examples include Titles XVIII and XIX, the Social Security Act amendments of 1965 that created Medicare and Medicaid; the Balanced Budget Act of 1997 that created the Children's Health Insurance Program (CHIP); and the Patient Protection and Affordable Care Act of 2010 (ACA). There are many other public and private policies that play an integral role in ensuring the quality of healthcare services.

Licensure is an example of how healthcare quality is affected by public health policies. Physicians, nurses, nurse practitioners, pharmacists, physical therapists, and other care providers must have licenses to practice their professions. These requirements are guided by the statutes and rules outlined in the professional practice acts and occupational licensing bodies of their respective states. There are many other examples of how public and private policies influence healthcare quality. The Americans with Disabilities Act requires health facilities to have ramped sidewalks to the front door and Braille numbers on the elevator buttons. Sprinklers in the ceilings, signs labeled "fire exit," and alarm-activated doors that close automatically are mandated by state building codes and the fire safety requirements of state regulations and private health facility oversight groups. Inappropriate or excessive radiation exposure to patients and healthcare personnel during diagnostic exams is prevented when facilities comply with the requirements of the Occupational Safety and

Health Administration and private oversight entities. The safety and efficacy of medications are investigated by the US Food and Drug Administration before they are released for patient use.

licensure
status granted by a governmental body and confirming minimum standards

accreditation
"a public recognition by a healthcare accreditation body of the achievement of accreditation standards by a healthcare organization, demonstrated through an independent external peer assessment of that organization's level of performance in relation to the standards" (Smits, Supachutikul, and Mate 2014, 66)

certification
a form of external quality review for health services professionals and organizations; when applied to individuals, it represents advanced education and competence; when applied to organizations, it represents meeting predetermined standards for a specialized service provided by the organization (Rooney and van Ostenburg 1999).

Considering the Donabedian (1980) model for measuring quality (structure, process, outcome), policy initiatives have historically targeted the quality of the structural elements of the healthcare delivery system, such as people, physical facilities, equipment, and drugs. Outcome measures, such as infant mortality rates and life expectancy, and aggregate process measures, such as immunization rates, have been collected for many years by the public health infrastructure at state, national, and international levels. Current health quality policy initiatives target outcomes and processes at the organization, provider, and population levels.

This chapter discusses the increasingly important role of public and private policies on healthcare quality by providing a brief overview of health policy concepts, explaining the role of quality oversight bodies, and introducing several healthcare quality initiatives that demonstrate the use of public and private policies to drive system change and improvement.

External Stakeholders Affecting Quality

A variety of external stakeholders—federal, state, and local government agencies and private organizations—set quality expectations and assess and monitor services delivered by health plans, health facilities, integrated delivery systems, and individual practitioners. Types of quality oversight organizations are summarized in exhibit 2.1.

External stakeholders use three primary approaches to influence healthcare quality: licensure, accreditation, and certification. **Licensure** is granted by a governmental body and represents *minimum* quality standards, while **accreditation** and **certification** are granted by nongovernmental

EXHIBIT 2.1
Types of Healthcare Quality Oversight Organizations in the United States

State licensing bodies. States, typically through their health departments, have long regulated healthcare delivery through the licensure of healthcare institutions such as hospitals, long-term care facilities, and home health agencies, as well as individual healthcare practitioners such as physicians and nurses. States also license, through their insurance and health departments, financial "risk-bearing entities," including both indemnity insurance products and those managed care products that perform the dual function of bearing risk (like an insurer) and arranging for or delivering healthcare services (like healthcare-providing entities).

(continued)

EXHIBIT 2.1 Types of Healthcare Quality Oversight Organizations in the United States (continued)

Private sector accrediting bodies. Accrediting bodies set standards for healthcare organizations and assess compliance with those standards. They also focus on the operation and effectiveness of internal quality improvement systems. In some functional areas, state and federal governments rely on or recognize private accreditation for purposes of ensuring compliance with licensure or regulatory requirements.

Medicare and Medicaid compliance. For a healthcare entity to receive Medicare or Medicaid reimbursement, the entity must meet certain federally specified conditions of participation (CoPs) or other standards. The Centers for Medicare & Medicaid Services (CMS) promulgates CoPs for hospitals, home health agencies, nursing facilities, hospices, ambulatory surgical centers, renal dialysis centers, rural health clinics, outpatient physical therapy and occupational therapy, and rehabilitation facilities. CMS also establishes standards for the participation of managed care organizations contracting under the Medicare program.

US Department of Labor. Oversight of certain aspects of employer-provided health plans is performed by the US Department of Labor. The Employee Retirement Income Security Act of 1974 sets minimum federal standards for group health plans maintained by private-sector employers, by unions, or jointly by employers and unions. The department oversees plan compliance with the following legal requirements of plan administration: reporting and disclosure of plan features and operations, fiduciary obligations for management of the plan and its assets, handling benefit claims, continuation coverage for workers who lose group health coverage, limitations on exclusions for preexisting conditions, prohibitions on discrimination based on health status, renewability of group health coverage for employers, minimum hospital stays for childbirth, and parity of limits on mental health benefits.

Individual certification and credentialing organizations. The American Board of Medical Specialties (an umbrella for 24 specialty boards) and the American Osteopathic Association have certification programs that designate certain medical providers as having completed specific training in a specialty and having passed examinations testing knowledge of that specialty. The Accreditation Council for Graduate Medical Education, sponsored by the American Medical Association and four other organizations, accredits nearly 7,700 residency programs in 1,600 medical institutions across the United States. For nursing, the American Board of Nursing Specialties sets standards for the certification of nursing specialties. The largest numbers of nurses, both in generalist and specialist practice, are certified by the American Nurses Credentialing Center on the basis of practice standards established by the American Nurses Association.

Source: Data from President's Advisory Committee on Consumer Protection and Quality in the Health Care Industry (1998).

organizations. Accreditation and certification represent *optimal* quality standards for organizations or *advanced* education and competence for individuals.

Quality oversight organizations are vital stakeholders of health services organizations. Their standards, regulations, and conditions of participation (CoPs) increasingly drive system change and improve quality of care and services. Details on the specific laws, regulations, and impact of healthcare quality may be found in other texts dedicated to health policy and healthcare management. In the next sections, a few key examples of external stakeholders (public and private) and how they influence healthcare quality are provided. Because the priorities and expectations of external stakeholders are constantly changing, students and managers charged with quality responsibilities will need additional resources to learn about the most current requirements of all stakeholder groups affecting their organization. The web resources at the end of this chapter are useful for this purpose.

Federal Health Policies and Oversight

The federal government is a vital stakeholder of health services organizations. Its regulations, CoPs, and health policy priorities are increasingly being used to drive system change and improve quality of care and services. Details on specific laws and regulations that affect healthcare quality may be found in other texts dedicated to health policy. This section presents a few key examples that illustrate the role of policy in system improvement. A brief background on the evolution of these initiatives is also provided so readers may appreciate the influence of history on the current healthcare quality landscape.

public policy "authoritative decisions made in the legislative, executive, or judicial branches of government that are intended to direct or influence the actions, behaviors, or decisions of others" (Longest 2010, 5)

The US government serves the following generic purposes: "to provide for those who cannot provide for themselves, to supply social and public goods, to regulate the market, and to instill trust and accountability" (Tang, Eisenberg, and Meyer 2004, 48). To accomplish these purposes, the government uses **public policy** or "authoritative decisions made in the legislative, executive, or judicial branches of government that are intended to direct or influence the actions, behaviors, or decisions of others" (Longest 2010, 5). Some of these public policies are considered **health policies** because they "pertain to health or influence the pursuit of health" (Longest 2010, 6). Health policies are crafted to influence health determinants, which in turn influence health. The ACA (US Department of Health and Human Services [HHS] 2015) was the most significant legislation resulting from public health policy since enactment of the Medicare and Medicaid programs in 1965.

health policies policies that "pertain to health or influence the pursuit of health" (Longest 2010, 6)

However, the federal government's influence extends beyond the ACA. In 2011, the HHS published *National Strategy for Quality Improvement in Health Care*. This document outlined the National Quality Strategy, a road map

for achieving affordability, better care, and healthy people and communities. The recommendations in this document affect all healthcare stakeholders—patients; providers; employers; health insurance companies; academic researchers; and local, state, and federal governments (HHS 2011). Each year, the road map is reviewed and revised as needed to reflect current priorities and performance results (Agency for Healthcare Research and Quality [AHRQ] 2016b).

The three broad aims of *National Strategy for Quality Improvement in Health Care* guide the local, state, and national efforts to improve health and the quality of healthcare. These aims include the following (AHRQ 2014):

- *Better care.* Improve overall quality by making healthcare more patient-centered, reliable, accessible, and safe.
- *Healthy people/healthy communities.* Improve the health of the US population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher-quality care.
- *Affordable care.* Reduce the cost of quality healthcare for individuals, families, employers, and the government.

The many legislative, regulatory, and reimbursement changes necessary to support the National Quality Strategy are affecting quality management at the provider level. Two notable changes came from federal legislation passed before the National Quality Strategy. The Health Information Technology for Economic and Clinical Health Act, enacted as part of the American Recovery and Reinvestment Act of 2009, promoted the adoption and meaningful use of health information technology (Jha 2012). This legislation has influenced the transition to electronic health records to improve the quality and safety of the healthcare system. The large federal subsidies for adopting this technology and financial disincentives have made the conversion from paper to electronic records possible in many organizations.

The ACA may also support the National Quality Strategy by encouraging healthcare organizations to form **accountable care organizations (ACOs)** to bring about efficiencies in consumption of services while lowering overall costs. An ACO is a network of providers (primarily doctors and hospitals) that share financial and medical responsibilities for providing coordinated care to patients in hopes of limiting unnecessary spending (Gold 2015).

accountable care organization (ACO) a network of providers (primarily doctors and hospitals) that share financial and medical responsibilities for providing coordinated care to patients in hopes of limiting unnecessary spending (Gold 2015)

Knowledge Acquisition

Public policy at the federal level creates formal structures and mechanisms for acquiring new knowledge so that public and private policymakers may make informed, evidence-based decisions about health quality practices. For example,

the AHRQ sponsors and conducts research and disseminates information to advance healthcare quality (see exhibit 2.2).

Another example is the Innovation Center at CMS (2016a), which the ACA created "for the purpose of testing innovative payment and service delivery models to reduce program expenditures . . . while preserving or enhancing the quality of care for those individuals who receive Medicare, Medicaid, or Children's Health Insurance Program (CHIP) benefits." Best practices and lessons learned from these tests are made available to all healthcare organizations to support quality improvement throughout the healthcare system at large. Several of the innovation models being tested have the potential to greatly affect quality and safety improvement activities at the provider level (see exhibit 2.3).

One initiative of the CMS Innovation Center is a nationwide public–private collaboration called Hospital Engagement Networks (HEN). These networks work at the regional, state, national, or hospital-system level to help identify solutions already working and disseminate them to other hospitals and providers. Initially, the CMS Innovation Center formed 26 HENs in 2012 as part of a campaign to reduce harm and improve the quality and safety of healthcare. Many of these networks were successful at achieving this goal. For instance, the 127 hospitals participating in the Iowa-based HEN prevented potential harm to more than 4,300 patients in 2013 and reduced healthcare costs by more than $51 million according to data released by the Iowa Healthcare Collaborative (Iowa Hospital Association 2014), which administers

EXHIBIT 2.2
Agency for Healthcare Research and Quality

Mission. To support research designed to improve the quality, safety, efficiency, and effectiveness of healthcare for all Americans. The research sponsored, conducted, and disseminated by AHRQ provides information that helps people make better decisions about healthcare.

Created. The agency was founded in December 1989 as the Agency for Health Care Policy and Research, a public health service agency in the HHS. Reporting to the HHS secretary, the agency was reauthorized on December 6, 1999, as the Agency for Healthcare Research and Quality. Sister agencies include the National Institutes of Health, the Centers for Disease Control and Prevention, the Food and Drug Administration, the Centers for Medicare & Medicaid Services, and the Health Resources and Services Administration.

Main functions. AHRQ sponsors and conducts research that provides evidence-based information on healthcare outcomes; quality; and cost, use, and access. The information helps healthcare decision makers—patients and clinicians, health system leaders, purchasers, and policymakers—make more informed decisions and improve the quality of healthcare services.

Source: Adapted from AHRQ (2016a).

EXHIBIT 2.3
Categories of New Payment and Service Delivery Models Being Tested by the CMS Innovation Center

Accountable care. Accountable care organizations and similar care models are designed to incentivize healthcare providers to become accountable for a patient population and to invest in infrastructure and redesigned care processes that provide for coordinated care, high quality, and efficient service delivery.

Episode-based payment initiatives. Under these models, healthcare providers are held accountable for the cost and quality of care that beneficiaries receive during an episode of care, which usually begins with a triggering healthcare event (such as a hospitalization or chemotherapy administration) and extends for a limited time thereafter.

Primary care transformation. Primary care providers are a key point of contact for patients' healthcare needs. Strengthening and increasing access to primary care is critical to promoting health and reducing overall healthcare costs. Advanced primary care practices—also called *medical homes*—use a team-based approach while emphasizing prevention, health information technology, care coordination, and shared decision making among patients and their providers.

Initiatives focused on Medicaid and CHIP populations. Medicaid and CHIP are administered by the states but are jointly funded by the federal government and the states. Initiatives in this category are administered by the participating states.

Initiatives focused on Medicare and Medicaid enrollees. The Medicare and Medicaid programs were designed with distinct purposes. Individuals enrolled in both Medicare and Medicaid (called *dual eligibles*) account for a disproportionate share of the programs' expenditures. A fully integrated, person-centered system of care that ensures all enrollees' needs are met could better serve this population in a high-quality, cost-effective manner.

Initiatives to accelerate the development and testing of new models. Many innovations necessary to improving the healthcare system will come from local communities and healthcare leaders from across the country. By partnering with these local and regional stakeholders, CMS can help accelerate the testing of models today that may be the next breakthrough tomorrow.

Initiatives to speed the adoption of best practices. Recent studies indicate that it takes nearly 17 years, on average, before best practices (practices backed by research) are incorporated into widespread clinical practice—and even then the application of the knowledge is very uneven. The CMS Innovation Center is partnering with a broad range of healthcare providers, federal agencies, professional societies, and other experts and stakeholders to test new models for disseminating evidence-based best practices and significantly increasing the speed of adoption.

Source: Data from CMS (2016b).

the network. To sustain this national progress and momentum, in 2015 CMS awarded a second round of contracts to 17 HENs, which include more than 3,200 hospitals (CMS 2015a).

CMS also promotes local implementation of quality practices through its network of Quality Improvement Organizations (QIOs). The Medicare QIO Program (formerly referred to as the Medicare Utilization and Quality Control Peer Review Program) was created by statute in 1982 to improve quality and efficiency of services delivered to Medicare beneficiaries (Leavitt 2006, 2). Today, the QIO Program comprises 14 regional Quality Innovation Networks designed to "bring Medicare beneficiaries, providers, and communities together in data-driven initiatives that increase patient safety, make communities healthier, better coordinate post-hospital care, and improve clinical quality" (Quality Improvement Organizations 2016).

Transparency

Transparency is a vital component of an efficient and effective healthcare system, as it fosters improved management of the cost and quality of health services (Wetzel 2014). In 1987, an unprecedented effort at nationwide healthcare performance transparency occurred when the Health Care Financing Agency (HCFA), now known as CMS, produced its first annual report of "observed hospital-specific mortality rates for Medicare acute care hospitals" (Cleves and Golden 1996, 40). The goal of this HCFA transparency initiative was to produce "better information to guide the decisions of physicians, patients, and the agency, thus improving outcomes and the quality of care" (Roper et al. 1988, 1198).

This initial transparency strategy set the stage for using federal policy to systematically develop and implement expectations, requirements, methodology, and infrastructure to collect, publish, and disseminate performance data measuring beneficiaries' quality of care. The mortality data reports were discontinued in 1994 and the focus turned to gathering and reporting performance data for high-volume, high-cost clinical conditions and patient experiences.

The specific performance data that healthcare organizations are required to report to CMS change each year. Many of the organization-specific quality performance data currently being reported can be found on the Medicare website (www.medicare.gov). In addition to quality measures for hospitals, the public has access to performance data for nursing homes, home health providers, and dialysis facilities. Making performance results more transparent—enabling stakeholders to assess healthcare quality and compare providers—is intended to encourage healthcare organizations to take steps toward improving health services. Refer to the web resources box for more information about these measurement and reporting initiatives.

Financial Incentives

The inpatient prospective payment system (IPPS) implemented by CMS in the 1980s focused on containing the increasing costs of hospital care. The next phase of financial incentives is focusing on improving the **value** of health services. Value is the ratio of quality to cost (value = quality/cost). Section 5001(c) of Deficit Reduction Act of 2005 required CMS to identify conditions that "could reasonably have been prevented through the application of evidence-based guidelines" (CMS 2015b). As of October 1, 2008, CMS denied additional payment for these **hospital-acquired conditions** (HACs), also known as **never events**, when patients developed one during a hospital stay (CMS 2015b). For example, when a patient got a HAC, such as a surgical-site infection following coronary artery bypass graft, the hospital would be paid as though this infection were not present.

value
the ratio of quality to cost (value = quality/cost)

hospital-acquired conditions (or never events)
medical conditions that "could reasonably have been prevented through the application of evidence-based guidelines" (CMS 2015b)

To understand how CMS has refocused the IPPS on value, consider the historical role of clinical complications and hospital payment. If a surgical sponge was accidently left inside the patient after surgery and the patient required another surgery to remove it, both surgeries were billed to the payer. The HAC financial incentive in the IPPS was designed to ensure that CMS would not pay for complications that should not have occurred in the first place. In addition, it was intended to encourage hospitals to adopt evidence-based practices to prevent never events from occurring.

To date, the success of this approach to financially incentivizing hospital quality improvements has been mixed. Waters and colleagues (2015) studied the association between Medicare's nonpayment policy and four of the more common HACs: central line–associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs), hospital-acquired pressure ulcers (HAPUs), and injurious inpatient falls. "Medicare's nonpayment policy was associated with an 11% reduction in the rate of change in CLABSIs . . . and a 10% reduction in the rate of change in CAUTIs, but was not associated with a significant change in injurious falls . . . or HAPUs" (Waters et al. 2015, 347). The authors concluded that reductions in the rates of CLABSI and CAUTI resulted from implementation of better hospital processes, whereas little evidence exists that changing hospital processes can lead to reductions in HAPUs or injurious inpatient falls (Waters et al. 2015).

A continued focus on value is the theme of contemporary healthcare quality policy at the federal level. The Medicare Access and CHIP Reauthorization Act of 2015 introduced two value-based payment models for physicians that have an impact on quality management: a Merit-Based Incentive Payment System and alternative payment models. These value-based payment models are intended to strengthen the relationship between physician payment and quality practices such as efficient use of healthcare resources and clinical improvements. These changes to the Medicare payment system for physicians

are not expected to be implemented for several years. It will be essential for physicians and healthcare facilities to understand how these payment models work so they can determine how and where to focus a systems approach to improving performance (Bassett 2016).

Private Health Policies and Oversight

Accreditation bodies are private, nongovernmental groups with policies and standards that encourage healthcare quality and safety improvement. Accreditation is voluntary, which means that, unlike public policies and oversight, healthcare organizations can choose whether to comply with an accreditation group's private policies and be subject to its oversight.

The Joint Commission is a nongovernmental accreditation organization for several types of health services organizations: ambulatory care, behavioral health care, critical access, home care, hospitals, laboratory services, nursing care, and office-based surgery. The Joint Commission also offers certification for disease-specific services for conditions such as chronic kidney disease and stroke and for programs such as palliative and perinatal care and primary care medical homes. For more information, see its website at www.jointcommission.org.

The National Committee for Quality Assurance (NCQA) offers accreditation programs for health plans and related organizations and programs such as wellness and health promotion and disease management. The NCQA also offers a variety of certifications; for a fuller description, see www.ncqa.org.

The national Public Health Voluntary Accreditation Board was established to "improve and protect the health of the public by advancing the quality and performance of Tribal, state, local, and territorial public health departments" (Public Health Accreditation Board 2016). Additional accreditation organizations are listed in the web resources box.

Organizations seeking CMS approval to participate in federally funded insurance programs such as Medicare and Medicaid may undergo state surveys on behalf of CMS or be surveyed by an accrediting body approved by CMS. Some private accreditation groups such as The Joint Commission, DNV GL, the Healthcare Facilities Accreditation Program, and the Institute for Medical Quality have been granted *deemed authority* by CMS. An organization accredited by one of these groups "would have 'deemed status' and would not be subject to the Medicare survey and certification process because it has already been surveyed by the accrediting organization" (American Society for Healthcare Engineering 2016). Because of this private–public relationship, the policies and standards of accreditation organizations with deeming authority necessarily support and, in many instances, parallel the federal regulations governing the healthcare organizations they accredit.

Knowledge Acquisition

Accreditation bodies, like public agencies, work to identify and disseminate best practices that support healthcare quality and safety improvements. For example, since 1996, accredited facilities have been encouraged to report sentinel events to The Joint Commission. A **sentinel event** is a patient safety event that affects a patient and results in death, permanent harm, or severe temporary harm and intervention required to sustain life (Joint Commission 2016). "Reporting of the event enables 'lessons learned' from the event to be added to The Joint Commission's Sentinel Event Database, thereby contributing to the general knowledge about sentinel events and to the reduction of risk for such events" (Joint Commission 2016). As of June 2016, The Joint Commission had published 56 sentinel event alerts describing process changes healthcare organizations can make to improve prevention.

sentinel event a patient safety event that affects a patient and results in death, permanent harm, or severe temporary harm and intervention required to sustain life (Joint Commission 2016)

Knowledge sharing is common practice in other accreditation and certification bodies. For example, more than 1,500 cancer care programs accredited by the Commission on Cancer report data to the National Cancer Database (NCDB). Data in the NCDB, jointly sponsored by the American College of Surgeons and the American Cancer Society, are used to analyze and track patients with malignant neoplastic diseases, their treatments, and their outcomes (American College of Surgeons 2016). This information is available to healthcare organizations to encourage the spread of cancer care best practices.

Laboratories accredited by the College of American Pathologists offer complimentary online access to resource guides that present new and evolving technologies in pathology and assist pathologists with ways to better understand, evaluate, and implement these technologies into their practices. For more information, see the group's website at www.cap.org.

Transparency

Since 2002, healthcare organizations accredited by The Joint Commission have been required to gather and report data for various performance measures. In 2002, hospitals reported data for eight measures of care provided for patients with heart failure, pneumonia, and myocardial infarction. By 2014, hospitals reported data for up to 49 different measures of disease-specific care as well as surgical care, venous thrombosis, and immunization care (Baker and Chassin 2016).

The Joint Commission's performance measure project is intended to assist facilities in identifying important quality gaps and help them improve their care (Baker and Chassin 2016). This aim is achieved, in part, by making facility-specific data and comparative state and national data for various measures publicly available on The Joint Commission's Quality Check website (www.qualitycheck.org). Several performance improvements have resulted from The Joint Commission's transparent quality measurement

efforts, including reduction of medically unnecessary early elective deliveries from 13.6 percent in 2011 to 3.3 percent in 2014 (Joint Commission 2015).

Financial Incentives

Private accrediting bodies lack the authority to impose financial incentives on healthcare organizations to influence quality improvements. However, private sector health plans and business groups are encouraging payment strategies similar to those being advanced by CMS in order to improve the value of healthcare services.

Summary

This chapter discusses the role of quality oversight organizations and introduces public and private groups whose policies and initiatives target system change. These initiatives fall into three areas: knowledge acquisition, transparency, and financial incentives. Because of the dynamic and rapidly changing nature of healthcare quality policy, both public and private, readers are encouraged to review the accompanying Internet resources as a means to keep current on changes, new initiatives, and plans for the future.

Exercise 2.1

Objective: To become familiar with the current CMS quality initiatives and how they support the National Quality Strategy and organizational performance improvement.

Instructions:

- Based on your work setting or an area of interest, select and explore one of the CMS quality initiatives (e.g., hospitals, home health, nursing home, end-stage renal disease) at www.cms.gov/center/quality.asp and review the current National Quality Strategy report (www.ahrq.gov/workingforquality).
- In two or three paragraphs, answer the following questions in reference to the quality initiative you selected:
  a. What does the CMS quality initiative include? Describe the initiative and its relationship to the National Quality Strategy.
  b. How can the data publicly available on the compare site for the quality initiative benefit a healthcare organization? Describe how the measurement data can be used in the setting you are interested in to improve performance.

Exercise 2.2

Objective: To become familiar with the current quality measurement initiatives of The Joint Commission.

Instructions: Explore the current ORYX performance measures of The Joint Commission (www.jointcommission.org/performance_measurement.aspx). For each measure, describe which system or systems in your chosen setting will be improved by the use of the measure.

Companion Readings

Callender, A. N., D. A. Hastings, M. C. Hemsley, L. Morris, and M. W. Peregrine. 2007. *Corporate Responsibility and Health Care Quality: A Resource for Health Care Boards of Directors.* US Department of Health and Human Services Office of Inspector General and American Health Lawyers Association. Published September 13. http://oig.hhs.gov/fraud/docs/complianceguidance/CorporateResponsibilityFinal%209-4-07.pdf.

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Web Resources

Accreditation

Accreditation Association for Ambulatory Health Care (AAAHC): www.aaahc.org

Accreditation Commission for Education in Nursing (ACEN): www.acenursing.org

(continued)

Accreditation Council for Graduate Medical Education (ACGME): www.acgme.org
Accreditation Council for Pharmacy Education (ACPE): www.acpe-accredit.org/
Center for Improvement in Healthcare Quality (CIHQ): http://cihq.org
College of American Pathologists (CAP): www.cap.org
Commission on Accreditation of Rehabilitation Facilities (CARF): www.carf.org
Commission on Cancer: www.facs.org/quality-programs/cancer/coc
Commission on Collegiate Nursing Education (CCNE): www.aacn.nche.edu/Accreditation/index.htm
Community Health Accreditation Program (CHAP): www.chapinc.org
DNV GL: http://dnvglhealthcare.com
Healthcare Facilities Accreditation Program (HFAP): www.hfap.org
Institute for Medical Quality: www.imq.org
The Joint Commission: www.jointcommission.org
National Committee for Quality Assurance (NCQA): www.ncqa.org
National Public Health Performance Standards Program (NPHPSP): www.cdc.gov/od/ocphp/nphpsp/index.htm
Public Health Accreditation Board (PHAB): www.phaboard.org
URAC (formerly the Utilization Review Accreditation Commission): www.urac.org

Reports

CMS Quality of Care Center (with links to compare websites): www.cms.gov/center/quality.asp
The Joint Commission Quality Check: www.qualitycheck.org
National Cancer Databases: www.facs.org/quality%20programs/cancer/ncdb

Federal Policymakers

CMS Innovation Center: https://innovation.cms.gov
CMS Partnership for Patients: https://partnershipforpatients.cms.gov
CMS Quality Improvement Programs: www.qioprogram.org
National Quality Strategy: www.ahrq.gov/workingforquality
Patient Protection and Affordable Care Act of 2010: www.hhs.gov/healthcare
US Department of Health and Human Services, priority goals and objectives: www.performance.gov/agency/department-health-and-human-services

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