CHAPTER 1

FOCUS ON QUALITY

Learning Objectives

After reading this chapter, you will be able to

- recognize factors that influence consumers' perception of quality products and services;
- explain the relationship between cost and quality;
- identify quality characteristics important to healthcare consumers, purchasers, and providers; and
- give examples of the varied dimensions of healthcare quality.

Key Words

- Cost-effectiveness
- Defensive medicine
- Healthcare quality
- High-value healthcare
- Institute for Healthcare Improvement (IHI)
- IHI Triple Aim framework
- National Academy of Medicine (NAM)
- National Quality Strategy
- Providers
- Purchasers
- Quality
- Quality assurance
- Reliability
- Value

Since opening its first store in 1971, Starbucks Coffee Company has developed into an international corporation with more than 23,000 locations worldwide. The company's dedication to providing a quality customer experience is a major contributor to its success. Starbucks's customers expect to receive high-quality, freshly brewed coffee in a comfortable, secure, and inviting atmosphere. In almost every customer encounter, Starbucks meets or exceeds those expectations. This consistency does not occur by chance. Starbucks puts a lot of behind-the-scenes work into its customer service. From selecting coffee beans that meet Starbucks's exacting standards of quality and flavor to ensuring baristas are properly trained to prepare espresso, every part of the process is carefully managed.

Providing high-quality healthcare services also requires much work behind the front lines. Every element in the complex process of healthcare delivery must be carefully managed. This book explains how healthcare organizations manage the quality of their care delivery to meet or exceed customers' expectations. These expectations include delivering an excellent patient care experience, providing only necessary healthcare services, and doing so at the lowest cost possible.

1.1 What Is Quality?

Quality
Perceived degree of excellence.

In its broadest sense, **quality** is an attribute of a product or service. The perspective of the person evaluating the product or service influences her judgment of the attribute. No

universally accepted definition of quality exists; however, its definitions share common elements:

- Quality involves meeting or exceeding customer expectations.
- Quality is dynamic (i.e., what is considered quality today may not be good enough to be considered quality tomorrow).
- Quality can be improved.

LEARNING POINT
Defining Quality

A quality product or service is one that meets or exceeds expectations. Expectations can change, so quality must be continuously improved.

Reliability

An important aspect of quality is **reliability**. From an engineering perspective, reliability refers to the ability of a device, system, or process to perform its prescribed function without failure for a given time when operated correctly in a specified environment (Crossley 2007). Reliability ends when a failure occurs. For instance, your laptop computer is considered reliable when it functions properly during normal use. If it stops functioning—fails—you have an unreliable computer.

Reliability
The measurable capability of a process, procedure, or health service to perform its intended function in the required time under commonly occurring conditions.

Consumers want to experience quality that is reliable. Patrons of Starbucks pay a premium to get the same taste, quality, and experience at every Starbucks location (Clark 2008). James Harrington, past president of the American Society for Quality, cautioned manufacturers to focus on reliability more than they have in recent years to retain market share. First-time buyers of an automobile are often influenced by features, cost, and perceived quality. Repeat buyers cite reliability as the primary reason for sticking with a particular brand (Harrington 2009).

Reliability can be measured. A reliable process performs as expected a high proportion of the time. An unreliable process performs as expected a low proportion of the time. Unfortunately, many healthcare processes fall into the unreliable category. Healthcare processes that fail to consistently perform as expected a high proportion of the time contribute to medical errors that cause up to 400,000 annual deaths in the United States and even more serious harm events (DuPree and Chassin 2016). Healthcare consumers are no

LEARNING POINT
Importance of Reliability

A necessary ingredient of quality is reliability, loosely defined as the probability a system will perform properly over a defined time span. It may be possible to achieve reliability without quality (e.g., consistently poor service), but quality can never be achieved without reliability.

different from consumers of other products and services; they expect quality services that are reliable.

Cost–Quality Connection

Value
A relative measure that describes a product's or service's worth, usefulness, or importance.

We expect to receive **value** when purchasing products or services. We do not want to find broken or missing parts when we unwrap new merchandise. We are disheartened when we receive poor service at a restaurant. We become downright irritated when our banks fail to record a deposit and our debit card withdrawals are denied.

How you respond to disappointing situations depends on how you are affected by them. With a product purchase, if the merchandise is expensive, you will likely contact the store immediately to arrange an exchange or a refund. If the product is inexpensive, you may chalk it up to experience and vow never to do business with the company again. At a restaurant, your expectations increase as the price of the food goes up. Yet, if you are adversely affected—for example, you get food poisoning—you will be an unhappy customer no matter the cost of the meal. The same is true for banks that make mistakes. No one wants the hassle of reversing a bank error, even if the checking account is free. Unhappy clients tend to move on to do business with another bank.

Cost and quality affect the customer experience in all industries. But in healthcare, these factors are harder for the average consumer to evaluate than in other types of business. Tainted restaurant food is easier to recognize than an unskilled surgeon is. As for cost, everyone agrees that healthcare is expensive, yet if someone else is paying for it—an insurance company, the government, or a relative—the cost factor becomes less important to the consumer. If your surgery does not go well, however, you'll be an unhappy customer regardless of what it cost.

LEARNING POINT
Cost–Quality Connection

The cost of a product or service is indirectly related to its perceived quality. A quality healthcare experience is one that meets a personal need or provides some benefit (either real or perceived) and is provided at a reasonable cost.

In all industries, multiple dynamics influence the cost and quality of products and services. First, prices may be influenced by how much the consumer is willing to pay. For example, one person may pay a premium to get the latest and most innovative electronic gadget, whereas another person may wait until the price comes down before buying it. This phenomenon is also evident in service industries. Rosemont College, a private coeducational institution in Bryn Mawr, Pennsylvania, reduced tuition to attract students. For the 2016–2017 academic year, the college dropped tuition from $32,620 to $18,500, and room and board costs from $13,400 to $11,500. These cost reductions resulted in a 64 percent increase in applications without any change in academic offerings (Hope 2017).

Second, low quality—say, poor customer service or inferior products—eventually causes a company to lose sales. The US electronics and automotive industries faced this outcome in the early 1980s when American consumers started buying more Japanese products (Walton 1986). Business and government leaders realized that an emphasis on quality was necessary to compete in a more demanding, and expanding, world market.

Consumer–Supplier Relationship

The consumer–supplier relationship in healthcare is influenced by different dynamics. For example, consumers may complain about rising healthcare costs, but most are not in a position to delay healthcare services until the price comes down. If you break your arm, you immediately go to a doctor or an emergency department to be treated. You are not likely to shop around for the best price or postpone treatment if you are in severe pain.

In most healthcare encounters, the insurance companies or government-sponsored payment systems (such as Medicare and Medicaid) are the consumer's agent. When healthcare costs are too high, they drive the resistance against rising rates. These groups act on behalf of consumers in an attempt to keep healthcare costs down. They exert their buying power by negotiating with healthcare providers for lower rates. In addition, they monitor billing claims for overuse of services and will not pay the providers—the suppliers—for services considered medically unnecessary. If a doctor admits you to the hospital to put a cast on your broken arm, your insurance company will question the doctor's decision to treat you in an inpatient setting. Your broken arm needs treatment, but the cast can be put on in the doctor's office or emergency department. Neither you nor the insurance company should be charged for the higher costs of hospital care if a less expensive and reasonable treatment alternative is available.

The connection between cost and quality is value. Most consumers purchase a product or service because they will, or perceive they will, derive some personal benefit from it. Healthcare consumers—whether patients or health plans—want providers to meet their needs at a reasonable cost (in terms of money, time, ease of use, and so forth). When customers believe they are receiving value for their dollars, they are more likely to perceive their healthcare interactions as quality experiences.

1.2 Healthcare Quality

What is **healthcare quality**? Each group most affected by this question—consumers, purchasers, and providers—may answer it differently. Most consumers expect quality in the delivery of healthcare services: Patients want to receive the right treatments and experience good outcomes; everyone wants to have satisfactory interactions with caregivers; and consumers want the physical facilities where care is provided to be clean and pleasant, and

Healthcare quality "Degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (IOM 2001, 4).

they want their doctors to use the best technology available. Consumer expectations are only part of the definition, however. Purchasers and providers may view quality in terms of other attributes.

Purchasers
Individuals and organizations that pay for healthcare services either directly or indirectly.

Cost-effectiveness
The minimal expenditure of dollars, time, and other elements necessary to achieve a desired healthcare result.

Providers
Individuals and organizations licensed or trained to give healthcare.

Defensive medicine
Diagnostic or therapeutic interventions conducted primarily as a safeguard against malpractice liability.

Identifying the Stakeholders in Quality Care

Purchasers are individuals and organizations that pay for healthcare services either directly or indirectly. If you pay out of pocket for healthcare services, you are both a consumer and a purchaser. Purchaser organizations include government-funded health insurance programs, private health insurance plans, and businesses that subsidize the cost of employees' health insurance. Purchasers are interested in the cost of healthcare and many of the same quality characteristics that are important to consumers. People who are financially responsible for some or all of their healthcare costs want to receive value for the dollars they spend. Purchaser organizations are no different. Purchasers view quality in terms of **cost-effectiveness**, meaning they want value in return for their healthcare expenditures.

Providers are individuals and organizations that offer healthcare services. Provider individuals include doctors, nurses, technicians, and clinical support and clerical staff. Provider organizations include hospitals, skilled nursing and rehabilitation facilities, outpatient clinics, home health agencies, and all other institutions that provide care.

In addition to the attributes important to consumers and purchasers, providers are concerned about legal liability—the risk that unsatisfied consumers will bring suit against the organization or individual. This concern can influence how providers define quality. Suppose you have a migraine headache, and your doctor orders a CT (computed tomography) scan of your head to be 100 percent certain there are no physical abnormalities. Your physician may have no medical reason to order the test, but he is taking every possible measure to avert the prospect that you will sue him for malpractice. In this scenario, your doctor is practicing **defensive medicine**—ordering or performing diagnostic or therapeutic interventions to safeguard the provider against malpractice liability (Minami et al. 2017). Because these interventions incur additional costs, providers' desire to avoid lawsuits can be at odds with purchasers' desire for cost-effectiveness.

DID YOU KNOW?

In a consumer message to Congress in 1962, President John F. Kennedy identified the right to be informed as one of four basic consumer rights. He said that a consumer has the right "to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labeling, and other practices, and to be given the facts he needs to make an informed choice" (Kennedy 1962). Consumers have come to expect this right as they purchase goods and services in the marketplace.

Defining Healthcare Quality

Before efforts to improve healthcare quality can be undertaken, a common definition of quality is needed to work from, one that encompasses the

priorities of all stakeholder groups—consumers, purchasers, and providers. The Institute of Medicine (IOM), a nonprofit organization that provides science-based advice on matters of medicine and health (now called the **National Academy of Medicine**), brought the stakeholder groups together to create a workable definition of healthcare quality. In 1990, the IOM committee charged with designing a strategy for healthcare **quality assurance** published this definition:

> Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (IOM 1990, 4).

In 2001, the IOM Committee on Quality of Health Care in America further clarified the concept of healthcare quality in its report *Crossing the Quality Chasm: A New Health System for the 21st Century.* The committee identified six dimensions of US healthcare quality (listed in critical concept 1.1), which influence the improvement priorities of all stakeholder groups.

National Academy of Medicine (NAM)
A private, nonprofit organization created by the federal government to provide science-based advice on matters of medicine and health. Formerly called the Institute of Medicine (IOM).

Quality assurance
Evaluation activities aimed at ensuring compliance with minimum quality standards. (*Quality assurance* and *quality control* may be used interchangeably to describe actions performed to ensure the quality of a product, service, or process.)

CRITICAL CONCEPT 1.1
Six Healthcare Quality Dimensions

1. Safe—Care intended to help patients should not harm them.
2. Effective—Care should be based on scientific knowledge and provided to patients who could benefit. Care should not be provided to patients unlikely to benefit from it. In other words, underuse and overuse should be avoided.
3. Patient centered—Care should be respectful of and responsive to individual patient preferences, needs, and values, and patient values should guide all clinical decisions.
4. Timely—Care should be provided promptly when the patient needs it.
5. Efficient—Waste, including equipment, supplies, ideas, and energy, should be avoided.
6. Equitable—The best possible care should be provided to everyone, regardless of age, sex, race, financial status, or any other demographic variable.

Source: Adapted from IOM (2001).

The IOM healthcare quality dimensions, together with the 1990 IOM quality-of-care definition, encompass what are commonly considered attributes of healthcare quality. Donald Berwick, MD (2005), then president of the **Institute for Healthcare Improvement (IHI)**, put this description into consumer terms when he wrote about his upcoming knee replacement and what he expected from his providers:

Institute for Healthcare Improvement (IHI) An independent, not-for-profit organization driving efforts to improve healthcare throughout the world.

- Don't kill me (no needless deaths).
- Do help me and don't hurt me (no needless pain).
- Don't make me feel helpless.
- Don't keep me waiting.
- Don't waste resources—mine or anyone else's.

The attribute of reliability is also important in healthcare quality. It is not enough to meet consumer expectations 90 percent of the time. Ideally, healthcare services consistently meet expectations 100 percent of the time. Unfortunately, healthcare today does not maintain consistently high levels of quality over time and across all services and settings (Burstin, Leatherman, and Goldmann 2016). Quality continues to vary greatly from provider to provider, and inconsistent levels of performance are still seen within organizations. In addition to the goal of achieving ever-better performance, healthcare organizations must strive for reliable quality.

High-value healthcare Low-cost, high-quality healthcare.

When consumers define healthcare quality, they include **high-value healthcare** that achieves good outcomes at reasonable prices. Currently, the cost–quality ratio is far from ideal. Quality shortfalls exist in areas such as treatment effectiveness, care coordination, patient safety, and person-centered care (AHRQ 2016). Poorly designed processes can create quality problems and unnecessarily increase costs throughout the healthcare system. For example, when previous test results or health records are not available to the doctor during a patient's appointment, inaccurate diagnoses or duplicate testing can occur. In a recent survey, nearly 20 percent of patients in the United States reported that records or test results had not been available at an appointment in the past two years, or that duplicate tests had been ordered (Osborn et al. 2016). Better value in healthcare cannot be attained until the quality shortfalls are greatly reduced.

Selecting Improvement Aims

National Quality Strategy Document prepared by the Agency for Healthcare Research and Quality on behalf of the US Department of Health and Human Services that helps healthcare stakeholders across the country—patients; providers; employers; health insurance companies; academic researchers; and local, state, and federal governments—prioritize quality improvement efforts, share lessons, and measure collective success.

The **National Quality Strategy**, led by the Agency for Healthcare Research and Quality (AHRQ) on behalf of the US Department of Health and Human Services, was first published in 2011 as the National Strategy for Quality Improvement in Health Care (AHRQ 2017). The purpose of the National Quality Strategy is to guide and assess local, state, and

national improvement efforts. It was developed with input from more than 300 individuals, groups, organizations, and other stakeholders representing all parts of the healthcare sector and the public.

When setting national aims, the National Quality Strategy adapted the **IHI Triple Aim framework** (Berwick, Nolan, and Whittington 2008). This framework detailed an interrelated approach for achieving optimal health system performance by simultaneously making improvements in three dimensions (care, health, and cost) that IHI called the "Triple Aim." The three broad aims of the National Quality Strategy are similar (AHRQ 2017):

- Better Care: Improve the 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 government.

IHI Triple Aim framework
A framework developed by the Institute for Healthcare Improvement (IHI) that encourages implementation of strategies for simultaneously enhancing the experience and outcomes of the patient, improving the health of the population, and reducing per capita cost of care for the benefit of communities (IHI 2017).

To advance these aims, the National Quality Strategy focuses on six priorities (AHRQ 2017):

1. Making care safer by reducing harm caused in the delivery of care.
2. Ensuring that each person and family is engaged as partners in their care.
3. Promoting effective communication and coordination of care.
4. Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
5. Working with communities to promote wide use of best practices to enable healthy living.
6. Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models.

LEARNING POINT
National Quality Strategy Priorities

The National Quality Strategy focuses on six priorities:

1. Patient safety
2. Person- and family-centered care
3. Communication and coordination of care
4. Preventive care
5. Community health
6. Making care affordable

Each year, AHRQ publishes a report detailing the state of healthcare quality in the United States and the country's progress toward meeting the aims and priorities of the National Quality Strategy. At the end of this chapter is a website where the current National Quality Strategy report can be found.

Conclusion

Customers' perceptions and needs determine whether a product or service is "excellent." Quality involves understanding customer expectations and creating a product or service that reliably meets those `expectations. Achieving high quality can be elusive because customer needs and expectations are always changing. To keep up with the changes, quality must be constantly managed and continuously improved.

Healthcare organizations are being challenged to improve the quality, reliability, and value of services. As shown in chapter 2, they can achieve this goal through a systematic quality management process.

For Discussion

1. In your opinion, which companies provide superior customer service? Which companies provide average or mediocre customer service? Name the factors most important to you when judging the quality of a company's customer service.
2. Think about your most recent healthcare encounter. What aspects of the care or service were you pleased with? What could have been done better?
3. How does the reliability of healthcare services affect the quality of care you receive? What type of healthcare service do you find to be the least reliable in delivering a quality product? What type do you find the most reliable?
4. Which National Quality Strategy priority is most important to you as a healthcare consumer, and why? Which priority do you believe is most important to providers, and why? Which priority do you believe is most important to health insurance companies, and why? Which priority do you believe will be the most difficult to achieve, and why?

Websites

- American Hospital Association's Health Research & Educational Trust
  www.hret.org
- American Public Health Association
  www.apha.org
- American Society for Quality
  www.asq.org
- Hospitals in Pursuit of Excellence, sponsored by the American Hospital Association
  www.hpoe.org
- Institute for Healthcare Improvement
  www.ihi.org
- Joint Commission Center for Transforming Healthcare
  www.centerfortransforminghealthcare.org
- National Academy of Medicine (formerly called the Institute of Medicine)
  https://nam.edu
- National Quality Strategy
  www.ahrq.gov/workingforquality

References

Agency for Healthcare Research and Quality. 2017. "About the National Quality Strategy." Published March. www.ahrq.gov/workingforquality/about/index.html.

———. 2016. *2015 National Healthcare Quality and Disparities Report and 5th Anniversary Update on the National Quality Strategy*. Accessed October 22, 2017. www.ahrq.gov/research/findings/nhqrdr/nhqdr15/index.html.

Berwick, D. M. 2005. "My Right Knee." *Annals of Internal Medicine* 142 (2): 121–25.

Berwick, D. M., T. W. Nolan, and J. Whittington. 2008. "The Triple Aim: Care, Health and Cost." *Health Affairs* 27 (3): 759–69.

Burstin, H., S. Leatherman, and D. Goldmann. 2016. "Evaluating the Quality of Medical Care." *Journal of Internal Medicine* 279 (2): 154–59.

Clark, T. 2008. *Starbucked: A Double Tall Tale of Caffeine, Commerce, and Culture*. New York: Back Bay Books.

Crossley, M. L. 2007. *The Desk Reference of Statistical Quality Methods*, 2nd ed. Milwaukee, WI: ASQ Quality Press.

DuPree, E. S., and M. R. Chassin. 2016. "Organizing Performance Management to Support High-Reliability Healthcare." In *America's Healthcare Transformation: Strategies and Innovations*, edited by R. A. Phillips, 3–16. New Brunswick, NJ: Rutgers University Press.

Harrington, H. J. 2009. "Nice Car . . . When It Runs." *Quality Digest* 29 (2): 12.

Hope, J. 2017. "Consider How Lowering Tuition Paid Off in Enrollment Boost for Small College." *Enrollment Management Report* 18 (5): 6–7.

Institute for Healthcare Improvement (IHI). 2017. "IHI Triple Aim Initiative." Accessed October 22. www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx.

Institute of Medicine (IOM). 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century.* Washington, DC: National Academies Press.

———. 1990. *Medicare: A Strategy for Quality Assurance: Volume I,* edited by K. N. Lohr. Washington, DC: National Academies Press.

Kennedy, J. F. 1962. "Special Message to the Congress on Protecting the Consumer Interest, March 15, 1962." Accessed October 22, 2017. www.presidency.ucsb.edu/ws/?pid=9108.

Minami, C. A., C. R. Sheils, E. Pavey, J. W. Chung, J. J. Stulberg, D. D. Odell, A. D. Yang, D. J. Bentrem, and K. Y. Bilimoria. 2017. "Association Between State Medical Malpractice Environment and Postoperative Outcomes in the United States." *Journal of the American College of Surgeons* 224 (3): 310–18.

Osborn, R., D. Squires, M. M. Doty, D. O. Sarnak, and E. C. Schneider. 2016. "In New Survey of Eleven Countries, US Adults Still Struggle with Access to and Affordability of Health Care." *Health Affairs* 35 (12): 2327–36.

Walton, M. 1986. *The Deming Management Method.* New York: Putnam Publishing Group.