CHAPTER 1

Healthcare Quality

CHAPTER OBJECTIVES

At the conclusion of this chapter, the learner will be able to:

- Examine the *Quality Chasm* reports and their impact on healthcare delivery.
- Analyze the current status of healthcare quality in the United States.
- Synthesize the key elements of the vision of healthcare quality.
- Examine the relationship between value and costs in healthcare delivery.
- Appraise the impact of the Affordable Care Act of 2010 on continuous quality improvement.
- Assess the National Quality Strategy and implications for nursing.
- Appraise the status of leadership, interprofessional teamwork, and nursing responsibility for continuous quality improvement.

OUTLINE

KEY TERMS

Continuous quality improvement (CQI)
Discrimination
Disparity
Diversity
Error
Health literacy
Healthcare organizations (HCOs)
Learning healthcare system
Macrosystem
Macroview
Mesosystem
Microsystem
Microview
Outcome
Pay for performance
Process
Quality care
Quality gap
Safety
Structure
System thinking

Introduction

As expressed by Nance (2008), the medical community has made great strides toward acknowledging and correcting the problem of medical injury in our society:

> We know how to prevent medical injuries. The Institute of Medicine [IOM] report that got so much attention also made a clear and unambiguous observation: It's not bad people, it's bad systems. Fix those systems! More than a half-century of thought, experimentation, and hard work in cognitive psychology, human factors engineering, and several high-hazard fields, most notably aviation, underlie that recommendation. System failures cause human failures. Fix systems if you want to stop medical mistakes and injuries. The efforts to fix systems have been enormous. Since the Institute of Medicine [IOM] report, there has been a steady crescendo of increasing development, testing, and implementation of new safe practices by hospitals throughout country. (p. vii)

As we learn more about **continuous quality improvement (CQI)**, we are better able to appreciate its complexity. Many **healthcare organizations (HCOs)** are trying out innovations and revising visions of how healthcare delivery should be viewed and the type of leadership required for integration and coordination of care so that care is patient centered (Bisognano & Kenney, 2012). The publication of *To Err Is Human* (IOM, 1999) and *Crossing the Quality Chasm* (IOM, 2001a) is sometimes described as the Big Bang in healthcare quality. In the words of Sollecito and Johnson (2013), "Suddenly, quality improvement was acknowledged to be a professional responsibility, a quality-of-care issue rather than a managerial tactic" (p. 25).

The content in this chapter reviews the overall view of healthcare quality—the CQI framework—and other background information needed to begin an examination of CQI. It echoes the sentiment of a question posed by Nash, Evans, and Bowman (2006): "After decades of research and numerous press reports indicating just how poor the quality of health care is in the United States, how can we continue denying that improving the quality of care is one of the most, if not the most, pressing public health issue today?" (p. 3).

Nurses have a responsibility to participate actively in improving care in their daily practice, whether that be in care delivery, management, education, or research, and should participate in healthcare policy-making at local, state, federal, and even global levels. This text supports the need for nursing engagement and leadership, but to achieve this objective requires knowledge and then application.

Healthcare Quality in the United States

The early reports from the National Academy of Medicine (NAM), then known as Institute of Medicine (IOM), describe **quality care** as "providing patients with appropriate services in a technically competent manner, with good communication,

shared decision-making, and cultural sensitivity" (IOM, 2001a, p. 232). This definition emphasizes an active relationship with the patient and expectation of high performance on the part of the system and its providers.

Improving care has a long history, although major efforts toward this end were slow in arriving. Nursing was directly involved early on with the work of Florence Nightingale in the late 1800s and early 1900s. Nightingale began to examine the healthcare environment, collecting and analyzing data and recommending changes. Others also began to address health delivery problems, but how to systematically assess care and then determine solutions was an unknown area. Later in this text, models and theories about CQI and their influence on the development of effective methods to measure and improve care over time are discussed. It is critical for nurses to continue to develop their engagement in CQI and to participate in all aspects of CQI, including the development of measurement methods—monitoring, collecting and analyzing data, creating new solutions—to help prevent quality care problems. We have made progress, with acceleration in ideas, technology, and research, but from this expansion we have also learned we do not know enough. We now look at CQI from the system perspective, but each nurse must also consider the key concerns from an individual provider perspective: (1) How can I improve care for my patients? (2) How can I improve the system of care? Other industries have made great strides in addressing safety concerns, but health care has been much slower in developing improvement efforts.

Millenson (2006) aptly describes one of the key obstacles to the quality improvement initiative:

> Like the civil rights movement, the quality improvement movement cast doubts on deeply held traditional beliefs; in this case, those of the individual physician. While it might have been the individual doctor's "duty" to pursue process improvement and outcomes measurement, it was in his "interest," given traditional financial incentives. (p. 15)

This view of "duty" rather than "interest" did slow down CQI efforts; however, this trend has changed with the greater emphasis on the need for improvement. One might also consider how nurses responded, as nursing has also been slow to become more competent in CQI and assume greater leadership. Elements of CQI have been included in nursing standards for a long time, but until recently, these efforts had not been enough to move CQI toward center stage in nursing. Consider, for example, the publication of *The Future of Nursing* (IOM, 2010a) and its emphasis on nursing competency and leadership as a requirement for CQI.

The *Quality Chasm* Reports and the Healthcare Delivery System

As articulated by Gantz, Sorenson, and Howard (2003) over a decade ago, "The movement [quality improvement] now reaches beyond the walls of health care since *quality* is a part of everyday conversation not only among providers and

payers but also consumers" (p. 324). This insight remains true today, and consumers are even more involved in commenting on health care. To appreciate the current views and status of U.S. health care, it is necessary to gain a historical perspective, particularly focusing on the 1990s to current date. Why is this background important? Healthcare delivery is influenced by healthcare policy, and so it is important to examine some of the policy issues—i.e., how they are identified and their impact. For nurses to assume greater leadership, they need this background information. The place to begin is with President W. Clinton's administration.

Presidents may form short-term commissions without approval of Congress to examine issues and problems. President W. Clinton established the President's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry, which published a final report, *Quality First: Better Healthcare for All Americans* (1998). The report indicated that there was concern about healthcare quality, and we needed to know more about its status and how quality improvement is accomplished and maintained. The commission recommended that the NAM assume the responsibility for additional extensive examination.

First, a recent development involving some of the key players in the CQI effort should be pointed out:

> On March 15, 2016, the division of the National Academies of Sciences, Engineering, and Medicine (the Academies) that focuses on health and medicine was renamed the Health and Medicine Division (HMD) instead of using the name Institute of Medicine (IOM). This new name builds on the heritage of the IOM's work in medicine while emphasizing its increased focus on a wider range of health matters. (NAS, HMD, 2016)

When this organization is mentioned in this text, it will be referred to as NAS/HMD.

The NAS/HMD is a nonprofit agency that is located in Washington, DC. The organization is not connected to the government, but rather serves as an advisor to the government, policy makers, businesses, educators, and professionals. Since its work is highly respected, it has great influence. How does the NAS/HMD provide advice? Typically, it is asked to examine a specific problem by an external party such as Congress, the president, government agencies, professional organizations, and so on, as was the case with President Clinton's Advisory Commission on Consumer Protection and Quality in Healthcare. The NAS/HMD staff invites a panel of experts to examine the problem. The panel is provided with staff support. Often a panel will work for several years, examining information and data and asking for expert testimony. Then a report is published that provides information and recommendations. These recommendations may be ignored or may be used

to initiate changes in policy, laws, regulations, education, and so on. The reports cover a broad range of topics, including health care. See the Connect to Current Information section at the end of the chapter for a link to the site, which provides free access to the reports.

Since 1999, the NAS/HMD has examined many issues and published reports related to healthcare quality, referred to as the *Quality Chasm* reports. Through this process of using multiple panels of experts representing a variety of professions, these reports describe the problems, define critical terms for consistency, develop aims or goals and a vision of a quality healthcare system, develop a framework for national monitoring, and address the issue of healthcare professions competencies that are needed to meet the goals and the vision. The following descriptions provide an overview of the critical reports in this series. These reports have had a major impact on how the United States views its healthcare system and provide important direction for planning and implementing national and state CQI initiatives and HCO quality improvement programs (Finkelman & Kenner, 2016).

To Err Is Human *(1999)*

As requested by President Clinton's commission, the NAS/HMD, then known as the IOM, began to examine health care, focusing on errors. This report did not just become a policy report that sat on a bookshelf; it was the report that opened Pandora's box. The media took note of this report and ran stories on the radio and television news, newspapers, and other print publications. Why was this topic so interesting? The report noted that approximately 44,000 to nearly 100,000 patients died annually in the United States due to errors. This information was overwhelming to consumers who trusted the healthcare delivery system. It came at a time when healthcare consumers had found their voice, mostly due to the experience of the managed care era when consumers became angry about the growing loss of choice in health care. At the time of the report, there was little systematic monitoring of healthcare data, meaning the description of death rates due to errors was probably not accurate; in all likelihood, the true rate was higher. The report's concern about errors was one aspect that was discussed, but also important was the recognition of the need for systematic monitoring.

Another issue that arose from this examination was the concern about the "blame culture," in which HCOs focus on blaming individual staff for errors and ignore the impact of system issues. This critical topic is discussed in further detail in other chapters. The report provided two important definitions: **Safety** is "freedom from accidental injury (IOM, 1999, p. 4). **Error** is the "failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim" (IOM, 1999, p. 4). Safety is a part of healthcare quality. It is not the only dimension of

quality, but resolving errors is important in achieving a high-quality healthcare system (IOM, 2001a; Sadeghi, Barzi, Mikhail, & Shabot, 2013).

The report concluded with recommendations, particularly noting that improving patient safety requires a comprehensive approach. There is no one magic solution. The other critical conclusion was that the system must move away from the prevailing blame culture. It is important to realize that at the time of this report the United States really had no comprehensive view or model of quality care or any method for monitoring and evaluating care. We had some pieces to the puzzle, but no system.

Crossing the Quality Chasm *(2001)*

With the publication of *To Err Is Human*, it was recognized that we needed to know more about the healthcare delivery system and its quality. A second panel was formed to continue this examination, resulting in *Crossing the Quality Chasm* (IOM, 2001a). This report concluded that the U.S. healthcare delivery system was dysfunctional, with great variety in performance, fragmented and poorly organized, confusing, and complex. There was treatment overuse, underuse, and misuse, all of which have a major impact on quality. This situation is often referred to as a **quality gap**. These outcomes were disturbing. In addition, other aspects of concern were noted. Chronic disease was a growing problem, crossing the life span, with many people having more than one chronic disease. The system was not prepared to deliver quality care for this population. In addition, there was concern that there was a problem with disparities in health care, although there was limited understanding of this problem.

The report began the process of describing a vision of the U.S. healthcare delivery system focused on quality, and this helped to develop a structure for CQI. If the only *Quality Chasm* report had been the 1999 report, we would not be where we are today, making more and more efforts to improve care. *Crossing the Quality Chasm* examined health care with greater depth, which was needed to fully recognize that the system had serious problems and was very weak. However, even though the first two reports indicated there were many problems, it took more reports, examination, and work to drive the need for CQI and make it a priority (Bisognano & Kenney, 2012).

Envisioning the National Healthcare Quality Report *(2001)*

As was noted in the first two *Quality Chasm* reports, there was great need for systematic monitoring of healthcare quality so that we would better understand the status of quality care and then use this information to improve care. *Envisioning the National Healthcare Quality Report* describes an initial framework for a national healthcare quality monitoring report that would be completed annually. As

expressed in this report (IOM, 2001b), "*The National Healthcare Quality Report* (*NHQR*) should serve as a yardstick or the barometer by which to gauge progress in improving the performance of the healthcare delivery system in consistently providing high-quality care" (p. 2). The framework for the annual report is influenced by the aims and the vision as well as other recommendations from *Quality Chasm* reports. The annual report makes data and analysis available to decision makers and the public. The original description of the framework has changed, but the core elements are the same. The Agency for Healthcare Research and Quality (AHRQ), which is an agency in the U.S. Department of Health and Human Services (HHS), is responsible for the annual *NHQR*, with the most current report accessible at the AHRQ website. A link is provided in the Connect to Current Information section at the end of the chapter.

Priority Areas for National Action *(2003)*

When the direction changed from developing a framework to routinely monitoring care quality, the question of what should be monitored arose. It was clear that not all aspects of care could or should be monitored. The *Priority Areas for National Action* report discusses the issue of prioritizing and identified the focus areas used in the first annual report (IOM, 2003a). As was expected, the focus areas have changed as certain areas have improved, reducing the need for monitoring, redefinition of areas, and new areas that need to be added.

Health Professions Education: A Bridge to Quality *(2003)*

After the NAS/HMD spent considerable time describing healthcare delivery problems and identifying aims, a vision, and setting up a system to monitor care, attention turned to the need for healthcare professionals to be prepared and competent to ensure that care is of the highest quality possible. This need impacts both staff education and academic education, as both settings prepare staff for professional roles such as physician, nurse, pharmacist, healthcare administrator, and many others. If the healthcare system is working toward improvement but the new healthcare professionals entering the system are not prepared in core areas, then improving care will be difficult.

The report's expert panel identified five healthcare professions core competencies that are necessary to reach an acceptable level of quality care (IOM, 2003b, p. 4).

1. Provide patient-centered care.
2. Work in interdisciplinary/interprofessional teams.
3. Employ evidence-based practice.
4. Apply quality improvement.
5. Utilize informatics.

The report recommended that all healthcare profession education programs adopt these core competencies. It is significant that the emphasis was not on a specific healthcare profession, but rather focused on all healthcare professions. These competencies should be common to all healthcare professions, although there are other specific competencies that also pertain to each profession. HCO staff who are not prepared in these areas need to be updated, as the competencies apply not only to students but also to staff. These competencies are directly related to healthcare problems and possible solutions. This text emphasizes these competencies for nurses because they are integral to understanding and application of CQI.

Nursing Reports

The NAS/HMD has had a major impact on nursing, as it has published several reports on nursing. The report *Nursing and Nursing Education: Public Policy and Private Action* (IOM, 1983) recommended that nursing have an active role at the National Institutes of Health (NIH), and as a result, Congress established the Center for Nursing Research at NIH in 1993. It is now called the National Institute for Nursing Research (NINR). The NINR has an impact on nursing and CQI. It provides greater nursing professional emphasis on research, which is necessary for evidence-based practice (EBP), a critical component of CQI and focus of one of the core competencies.

The second major report, *Keeping Patients Safe: Transforming the Work Environment for Nurses* (IOM, 2004a), emphasizes the need to transform the work environment for nurses, focusing on the 24/7 role of nurses in acute care and how their work impacts the quality of care. The report's recommendations focus on four areas: (1) adopting transformational leadership and evidence-based management, (2) maximizing the capability of the workforce, (3) designing work and workspaces to prevent and mitigate errors, and (4) creating and sustaining cultures of safety (IOM, 2004a, pp. 7–14). This examination of acute care nursing provides important information about the status of nursing in the healthcare system and what needs to improve. The report strongly supports the need for nurses to assume more active roles in CQI but concludes that nurses are not sufficiently prepared to do this. Nursing leadership is also emphasized in this report.

In 2010, a landmark report titled *The Future of Nursing: Leading Change, Advancing Health* was published, which continued the earlier work done by the NAS/HMD (IOM, 2010a). This report discusses changes needed in nursing degrees, the need to increase the number of BSN-prepared nurses and doctoral-prepared nurses, barriers to scope of practice, the need for lifelong learning, workforce issues, and other relevant professional concerns. *Keeping*

Patients Safe (IOM, 2004a) provides the critical groundwork for *The Future of Nursing* report. In many respects, *Keeping Patients Safe* discusses more significant information about nursing practice, such as the major role of nurses in the healthcare delivery system, the need for nurses to be leaders in CQI (although they are often not prepared to do so), staffing and staff schedules, the blame culture, work design and its impact on quality, the need for transformational leadership, the nursing shortage, risks of working long hours, and the need for greater use of surveillance or ongoing monitoring of patients. Although this report's content is significant for nursing, it received minimal attention when published compared to the attention given *The Future of Nursing*. The 2010 report and the progress report published in 2015 are discussed in more detail in other chapters in this text.

Public Health Reports

The *Quality Chasm* reports also examine public health. The two major public health reports are *The Future of the Public's Health in the 21st Century* (IOM, 2003c) and *Who Will Keep the Public Healthy?* (IOM, 2003d). Although we often think of the public health system as separate from the "healthcare delivery system," it should be an integral part of the entire healthcare delivery system. Today, there is much more focus given to the entire system and recognition that more needs to be done to provide care and meet health needs within the patient's community. Public/community health delivery also requires improvement, and in addition, there will be greater need for public health services and thus for public health professionals. The first report identifies aspects of public health that are important in reviewing: population health approach, public health infrastructure, partnerships, accountability, evidence, and communication. In addition to the five healthcare professions competencies identified in the report *Health Professions Education* (IOM, 2003b), the second public health report notes that effective public health requires that staff be competent in informatics, genomics, communication, culture, community-based participatory research, global health, policy and law, and public health ethics.

Impact of the Quality Chasm Reports

The *Quality Chasm* reports have had a major impact on U.S. views of quality care, influencing innovations to improve care and healthcare legislation, such as the Patient Protection and Affordable Care Act of 2010 (ACA). Staff may wonder why it is important to pay attention to this work on quality care and its numerous reports. The answer: It represents the leading source of critical examination of the healthcare delivery system and its outcomes. Its recommendations influence the creation of new legislation and regulations and impact government departments and agencies,

such as the HHS, Centers for Medicare and Medicaid Services (CMS), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), AHRQ, Occupational Safety and Health Administration (OSHA), National Institute for Occupational Health and Safety (NIOSH), and state and local departments and services.

The *Quality Chasm* reports have led to many changes in health care, but one of the most notable is that "suddenly, quality improvement was acknowledged to be a professional responsibility, a quality-of-care issue rather than a managerial tactic" (Sollecito & Johnson, 2013, p. 25). The responsibility for CQI has typically been more important to higher healthcare administration; however, now this responsibility has been expanded to include healthcare providers, who can make major changes in the quality of care on a daily basis.

The recommendations led to changes in HCOs and CQI-related organizations' requirements, such as those of The Joint Commission, which accredits most HCOs. Healthcare professional organizations and educational institutions also consider the *Quality Chasm* reports' recommendations relevant to their goals and use them in developing initiatives to improve care and healthcare professional education, such as the following examples, many of which are discussed in other sections of this text:

- The Joint Commission designation of annual safety goals, which are monitored by organizations accredited by The Joint Commission (the goals change annually depending on the need)
- The Joint Commission and World Health Organization (WHO) initiatives focusing on reducing errors globally
- The development of the Institute for Healthcare Improvement and resources about CQI for staff, education programs, and healthcare professions students
- Institute for Healthcare Improvement 5 Million Lives Campaign collaborating with The Joint Commission's High 5s Project
- CMS changes in reimbursement and development of the Hospital Acquired Complications initiative
- Development of increased interest in interprofessional collaborative teams leading to need to improve interprofessional education; publication of major reports on these topics jointly developed by an interprofessional group
- Development of web-based information and tools to improve care
- Establishment of the CMS Hospital Quality Initiative, providing comparison information on quality
- Publication of *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2010a), a critical report influenced by the previous *Quality Chasm* reports on CQI and related nursing reports

- Publication of *Educating Nurses*: *A Call for Radical Transformation* (Benner, Sutphen, Leonard, & Day, 2010), a major report about a study that concludes there is need to improve nursing education
- Passage and implementation of the ACA, which is focused on healthcare delivery, access to care, and costs

The pressure to focus more on CQI has been influenced by the *Quality Chasm* reports, but also by initiatives that developed from these reports and other reports that followed (Draper, Felland, Liebhaber, & Melichar, 2008). Changes, such as the preceding examples, are ongoing. The Joint Commission changed its focus to requiring that their accredited HCOs report on core quality measures for accreditation, rather than using a broad-based approach that tries to assess all aspects of an HCO. Since insurers typically expect HCOs such as hospitals to be accredited, there is now increased HCO motivation to meet these requirements to ensure reimbursement of services. The Magnet Recognition Program® places greater emphasis on HCO nursing service responsibilities and leadership in HCO quality improvement, supporting the recognition of nurses meeting critical CQI responsibilities and the need for this leadership. These examples and others are discussed in more detail throughout this text, but they are mentioned here to illustrate the major impact of the *Quality Chasm* reports on health policy, healthcare delivery, nursing practice, and healthcare profession education. In 2014, The U.S. Senate Committee on Health, Education, Labor, and Pensions held meetings on healthcare quality and discussed the recommendations from the *Quality Chasm* reports, their outcomes, and the current quality status. **Exhibit 1-1** provides excerpts of this discussion, illustrating how important this topic is in the United States and the concern about the need for improvement.

Since the first report in the *Quality Chasm* series was published in 1999 there have been many other reports that expanded on the topic and also focused on more specific issues related to quality care and to specialty care such as emergency care, oncology, women's health, pediatrics, pain management, chronic disease, genomics, EBP, and others. All reports are available through the NAS/HMD website, listed in the Connect to Current Information section at the end of chapter.

Reports on Diversity and Disparities in Health Care

With the extensive examination of the healthcare system, the early *Quality Chasm* reports noted that there was most likely a serious problem with disparities in health care, which is also related to efforts to improve public/community health (IOM, 2001a). This led to additional reports on this problem and to the development of a *National Healthcare Disparities Report* (*NHDR*) that would be available with the *NHQR* and also administered by the AHRQ. In 2010, the NAS/HMD was asked to

Exhibit 1-1 Excerpts from Expert Testimony, U.S. Senate Committee on Health, Education, Labor, and Pensions (HELP), Subcommittee on Primary Health and Aging. Patient Safety Hearing. (July 17, 2014)

Peter Pronovost, MD, PhD, FCCM: Medicine today has preventable harm as the third leading cause of death. We do not Bates, and I used published literature to estimate that over 220,000 preventable deaths occur from health care; that is over 600 deaths daily, which is far more than from mining or faulty automobiles yet receiving far less attention. This estimate is conservative and does not include more than 120,000 deaths from teamwork failures, 80,000 deaths from misdiagnosis, or thousands of deaths from sepsis. Medicine today squanders a third of every dollar spent on therapies that do not get patients well, that result from treating preventable complications, and that result from administrative inefficiencies and fraud. This is about $9000 per U.S. household, (Fineberg, 2012) money that could be better spent on preschool education and STEM, on innovation, and on securing a better tomorrow for all Americans. Medicine today invests heavily in information technology. The Federal government and health care organizations have spent hundreds of billions of dollars on health information technology with little to show for it. The promised improvements in safety have not been realized and productivity has decreased rather than increased.

Ashish Jha, MD, MPH: So here we are, 15 years after *To Err is Human* and it is critical to ask a simple question: how much progress have we made? First, I want to start off with some good news. We have dramatically increased our awareness of patient safety issues and changed how we think about medical errors. In the past, medical errors were thought to be the result of individuals behaving badly. We blamed the doctor who ordered the wrong treatment, the pharmacist who dispensed the wrong dose, or the nurse who gave the medication to the wrong patient. This idea that adverse events were due to bad people led to a "deny and defend" culture among healthcare professionals and prevented progress on patient safety. Today, we know better. We know that medical errors are largely the result of bad systems of care delivery, not individual providers.

Four years ago, the New England Journal of Medicine published a terrific study from North Carolina hospitals that found that between 2002 and 2007, there had been little or no progress in reducing harm from unsafe medical care (Landrigan, Parry, Bones, Hackbarth, Goldman, & Sharek, 2010). A recent study led by Dr. John James found that between 200,000 and 400,000 Americans die each year from unsafe medical care, which makes it the third leading killer in the U.S., behind only heart disease and cancer (James, 2013). Finally, in an

eye-opening November 2011 report on adverse events in hospitals, the Office of the Inspector General (OIG) in the Department of Health and Human Services found that 13.5 percent of Medicare patients suffered an injury in the hospital that prolonged their stay or caused permanent harm or death. An additional 13.5 percent of Medicare patients suffered temporary harm such as an allergic reaction or hypoglycemia. Together, the data suggest that more than one in four hospitalized Medicare beneficiaries suffers some sort of injury during their inpatient stay, much higher than previous rates. The OIG report also found that unsafe care contributes to 180,000 deaths of Medicare beneficiaries each year, and that Medicare pays at least $4.4 billion to treat these injuries (HHS, 2010)

Despite all the focus on patient safety, it seems we have not made much progress at all. The news is not all bad, of course -- and there are areas where we have made meaningful gains. The area of safety that has seen the biggest improvement is healthcare associated infections.

While much attention in patient safety has been paid to acute hospitals, we have generally paid far less attention to what happens when patients are discharged. In a different report, the OIG at HHS found that 22 percent of Medicare beneficiaries in skilled nursing facilities (SNF) suffered a medical injury that prolonged their stay or caused permanent harm or death. An additional 11 percent suffered temporary medical injury. All told, OIG estimates that adverse events cost Medicare roughly $2.8 billion per year, and about half of these events are preventable. The OIG report is particularly alarming given that about 20 percent of hospitalized Medicare patients go to a SNF after discharge (HHS, 2014). We need a renewed call to improve patient safety as a national priority.

The strategy for improvement has to focus on three main areas: metrics, accountability, and incentives. Getting the metrics right may be the most important. The fundamental problem is that most healthcare organizations don't track the safety of their care. In addition, I believe that health information technology has a critical role to play in improving patient safety. But metrics and reporting alone will not be enough. We also need to make safe care part of the business of providing healthcare. And this requires incentives.

Tejal Gandhi, MD, MPH, CPPS: I would like to talk to you today about ambulatory patient safety and the priorities and challenges that we currently face. Much of the effort of the patient safety movement over the past 15 years, since the Institute of Medicine report To Err is Human (http://www.nap.edu/catalog.php?record_id=9728), has focused on improving patient safety in the hospital setting. However, it is important to remember that most care is given outside of hospitals, and there are numerous safety issues that exist in other health settings that are quite different from those we face

in hospitals (Gandhi, 2010). The setting that we know the most about, in terms of ambulatory safety issues, is primary care. I will touch on 3 areas in particular--medication safety, missed and delayed diagnoses, and transitions of care. Studies have shown that medication errors are common in primary care, and that adverse drug events, or injuries due to drugs, occur in up to 25% of patients within 30 days of being prescribed a drug (http://www.ncbi.nlm.nih.gov/pubmed/12700376). In addition, a key medication safety issue in ambulatory care, that is not an issue in hospitals, is non-adherence. Missed and delayed diagnosis is a key issue as well-- this is the most common type of outpatient malpractice claim (usually missed and delayed diagnosis of cancer in primary care). Lastly, we know that patients are vulnerable during transitions in care. These transitions occur all the time in health care--hospital to home, nursing home to emergency department, rehabilitation center to visiting nurse. Transitions are high-risk times, when key pieces of information (such as medication changes, pending test results, additional workups that need to happen) can be lost. For example, one study found that after hospital discharge, within 3 to 5 days, one-third of patients were taking their medications differently than how they were prescribed at discharge (Schnipper, et al., 2006). A major theme throughout ambulatory safety is patient engagement--partnering with patients to achieve safer care.

Joanne Disch, PhD, RN, FAAN: The estimate by James (2013) that possibly 400,000 PDs occur each year is more accurate than the previous Institute of Medicine (IOM) projection of 98,000/year (*To Err Is* Human, 1999). However, I would respectfully suggest that the title of this hearing understates the problem – and the title of the hearing should be changed to 'More than 1000 preventable deaths - and 10,000 preventable serious complications a day - is too many. . ."

This morning, I will highlight some of the key factors influencing patient safety, and make three recommendations which I know, from my 46 years as a nurse, make a difference: (1) assuring an adequate and appropriately educated supply of registered nurses at the bedside; (2) actively engaging patients and families as partners in their care; and (3) moving hospitals and other healthcare settings to embrace a safety culture and become high reliability organizations. My comments focus on the hospital setting since that is where we have the most data, although the principles apply to other settings.

Nurses are the cornerstones of the American health care system. Registered nurses form the largest element (2.6 million), with more than half (58%) working in medical and surgical hospitals (BLS, 2013). They provide care

24/7 and are on the 'ground floor' of care delivery. They are the eyes and ears of patients and their families, as well as physicians and other HCPs who are interacting with the patient intermittently. The nurse's role is to assess the patient's condition and response to treatment; perform indicated treatments; prevent complications; assist the patient and family in adjusting to the treatment or impact of chronic illness; and create a safe environment within which health, healing or a peaceful death can occur. It is the nurse who sees a skin breakdown that will lead to a bedsore; it is the nurse who notices the older woman's unsteady gait and puts in place strategies to prevent a fall; it is the nurse who notices that the dose of the drug ordered is not relieving the pain and who initiates a conversation with the physician to get the order changed. Individuals who have been hospitalized, or have had a family member hospitalized, understand the essential role of the nurse. Actually, nursing care is the reason for hospitalization . . . and it is the nurse who is the 'last line of defense' against error.

Source: Data from U.S. Senate Committee on Health, Education, Labor, & Pensions. (2014). Subcommittee hearing: More than 1,000 preventable deaths a day is too many: The need to improve patient safety. Retrieved from http://www.help.senate.gov/hearings/more-than-1-000-preventable-deaths-a-day-is-too-many-the-need-to-improve-patient-safety. Testimony examples are excerpted from longer transcripts available at the URL.

Other references noted in comments from the congressional testimony:

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review the AHRQ monitoring system, and this led to the following improvement recommendations (IOM, 2010b, p. xi):

- Track national priorities for quality improvement and high-impact measurement areas to inform collective action across federal and other public and private sector healthcare delivery programs.
- Conceptually and operationally link quality improvement and disparities elimination in the *NHQR* and *NHDR*.
- Highlight quality achievement by presenting best-in-class benchmarks: Move from only presenting historical trend data to also extrapolating rates of change to indicate when gaps might be closed at the existing pace; present an assessment of the effect on population health of bridging quality and equity gaps.
- Analyze and present data in meaningful ways that identify for Congress, states, and others the results of and prospects for evidence-based policies and interventions
- Support broader and sustained dissemination of report content.

Unequal Treatment *(2003)*

Unequal Treatment (IOM, 2003e) examined healthcare disparities and noted that bias, prejudice, and stereotyping may result in disparities, and the healthcare delivery system had a healthcare disparities problem. This problem is found consistently across a variety of healthcare settings and diagnoses. **Disparities** is defined as "racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention" (IOM, 2003e, pp. 3–4). Any **diversity** characteristic could be applied to this definition—for example, gender, religion, ethnicity, and so on. Among the goals of Healthy People 2020, a federal initiative, are to "achieve health equity, eliminate disparities, and improve the health of all groups" (HHS, ODPHP, 2010). This objective relates to conclusions and recommendations in the *Quality Chasm* reports on quality and disparities. There was concern that discrimination existed in the healthcare system. The goal is to reduce **discrimination**, defined as "differences in care that result from bias, prejudices, stereotyping, and uncertainty in clinical communication and decision-making" (IOM, 2002, p. 4).

Health Literacy *(2004)*

Health Literacy expanded the discussion about diversity to include **health literacy**, defined as "the degree to which individuals have the capacity to obtain, process, and understand basic information and services needed to make appropriate decisions regarding their health" (IOM, 2004b, p. 2). Health literacy has a major impact on quality care and the health of individuals and communities. For example, if a

patient or family cannot understand medication directions, then an error may occur or the patient may not take medication as prescribed, influencing health outcomes. Healthcare providers need to recognize that understanding may be more than just the ability to read. Vulnerable populations are at greater risk for health literacy problems. The AHRQ announced in 2011 that low health literacy in older Americans is linked to poorer health status and a higher risk of death, more emergency room visits, and more hospitalizations (HHS, AHRQ, 2011). Today, efforts are being made to address this problem, but much more needs to be done. This topic is discussed in other chapters, as it is highly relevant to meeting CQI outcomes and nursing care.

Guidance for the National Healthcare Disparities Report *(2002)*

Due to the recognition of a major problem in healthcare disparities, it was recommended that in addition to annual monitoring of healthcare quality there is need to also annually monitor healthcare disparities. *Guidance for the National Healthcare Disparities Report* describes how disparities should be monitored and how to best integrate this information with quality monitoring (IOM, 2002). Both are administered by the AHRQ and found on the same website. If healthcare disparities are to be reduced, it is critical that there be a comprehensive review of the status and need to monitor change over time. Developing interventions to improve has become an important goal for HCOs and healthcare professions. Other content in this text elaborates on healthcare diversity and the problem of disparities.

In addition to reviewing these important reports, it is necessary to consider diversity in healthcare professions. In the Sullivan Commission on Diversity in the Healthcare Workforce report, it is noted that the United States needs greater workforce diversity to better meet the needs of a growing diverse patient population and reduce healthcare disparities (Sullivan, 2004). Since the publication of this report, there has been greater emphasis on increasing the number of minorities in all healthcare professions. In nursing, funding has been granted to assist in examining diversity in the profession and to support programs in nursing schools to increase faculty and student diversity, although the lack of diversity continues to be a concern.

Healthy People 2020

The Healthy People 2020 initiative focuses on community and public health. This initiative is now in its third 10-year cycle. The HHS Office of Disease Prevention and Health Promotion (2010) describes the Healthy People initiative as follows:

> *Healthy People* is used as a tool for strategic management by the federal government, states, communities, and many other public- and private-sector partners. Its comprehensive set of objectives and targets is used to measure

> progress for health issues in specific populations, and serves as (1) a foundation for prevention and wellness activities across various sectors and within the federal government, and (2) a model for measurement at the state and local levels. (p. 1)

The Healthy People vision is a society in which all people live long, healthy lives, and this initiative aims to (Healthy People, 2015):

1. Attain high quality, longer lives free of preventable disease, disability, injury, and premature death.
2. Achieve health equity, eliminate disparities, and improve the health of all groups.
3. Create a social and physical environment that promotes good health for all.
4. Promote quality of life, healthy development, and healthy behaviors across life stages.

These goals are directly related to the work of the NAS/HMD, and there has been collaboration between the NAS/HMD and the Healthy People initiative. At the request of Healthy People, NAS/HMD participated in a review of Healthy People and provided comments about the revision of its leading indicators (IOM, 2011a). This collaboration demonstrates how NAS/HMD is integrated throughout many aspects of healthcare policy and initiatives that address improving health and healthcare delivery. **Figure 1-1** describes the key aspects of the current Healthy People cycle. Further information can be accessed through the Healthy People website, listed in the Connect to Current Information section at end of the chapter.

Stop and Consider #1

Up until 1999, we had limited in depth knowledge of healthcare quality.

Status of Healthcare Quality

As we get into a more detailed examination of CQI and how nurses can be involved in the effort, it is important to review the current status of healthcare quality and disparities. We now know we have annual reports on quality and disparities to help us monitor and analyze the status, and the current reports are accessible through the AHRQ website. Where do we stand, and what should concern us?

Since the publication of the 1999 *Quality Chasm* report, additional concerns have been identified and discussed:

> For more than a decade, reports of the Institute of Medicine (IOM) have focused attention on a persistent set of problems within the American healthcare system that urgently need to be addressed, including poor quality;

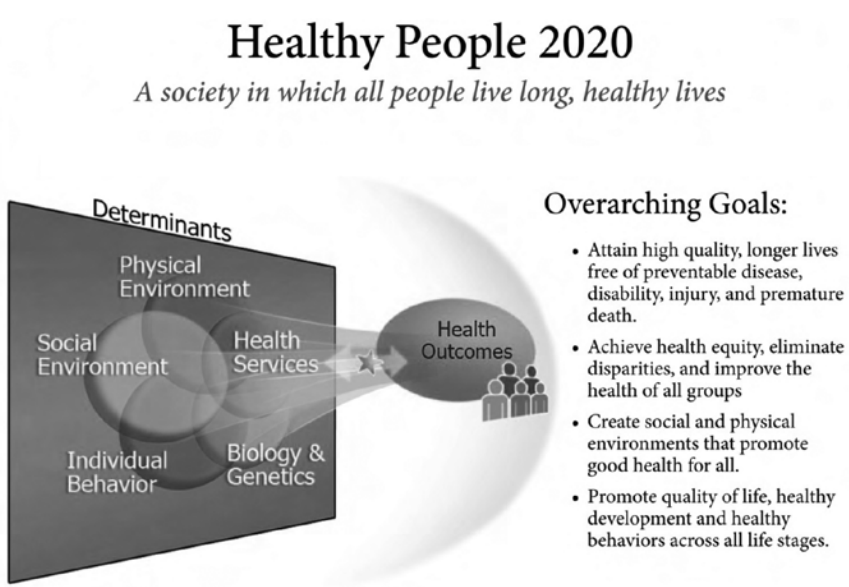

Figure 1-1 Healthy People 2020
SOURCE: Reproduced from Healthy People 2020. (2016). Framework. Retrieved from http://www.healthypeople.gov.

> lax safety; high cost; questionable value; and the misdistribution of care based on income, race, and ethnicity. Each report has called for substantive transformation of the nation's healthcare system. Many have pointed out a disturbing paradox: the coexistence of overtreatment and undertreatment. The committee that authored this report found a similar situation: learning and adoption that are maddeningly slow—as with hand washing—coexisting with overly rapid adoption of some new techniques, devices, and drugs, with harmful results. Exemplary efforts under way across the nation are working on these problems . . . . But the pace of change is too slow, and adoption is too spotty; the system is not evolving quickly enough. (IOM, 2012, p. xi)

Based on comments like this and others, much work still must be done. Despite reports, initiatives, and work done by the government, HCOs, and healthcare providers, the United States continues to have quality care problems. In 2016, a study noted that if healthcare errors were considered a disease, errors would be the third-leading cause of death in the United States (Makary & Daniel, 2016). This is a significant statement, particularly if you consider this study alongside the 1999 report *To Err Is Human* (IOM, 1999), which identified a high rate of errors many years ago.

Also in 2016, it was revealed that the National Institutes of Health Clinical Center has had major quality problems, so much so that its leadership would be replaced (Bernstein & McGinley, 2016). The Clinical Center serves as a hospital for clinical trials and is the largest hospital of its kind in the world. It has a long history of providing care that is needed and exemplary; however, an independent review board

"concluded that patient safety had become 'subservient to research demands'" (Sun, 2016). The review also noted that when compared to other hospitals, the center had no adequate systems for staff to report problems, such as near misses and errors, anonymously and supervisors did not address problems. This conclusion demonstrates grave problems and indicates that even with all the discussion about CQI and in a hospital that is so well known, there are HCOs providing care in an environment in which CQI is not a priority.

Since 1999, the healthcare community has recognized some elements of CQI that are important determinants of whether quality care is provided. Examples include movement toward a patient-centered system, greater engagement of patients and families, health informatics that continues to develop and provide tools that can be used while providing care, monitoring of care, CQI measurement, and more. As a result of the *Quality Chasm* reports, there is now greater recognition for more national approaches; many of the current initiatives are discussed in this text. We know we need leadership that guides CQI and staff engaged in the process. But despite all of these insights, much more needs to be learned about CQI and how to achieve it. CQI is not something that really has an end point, which is why quality improvement is referred to as *continuous* quality improvement.

Quality Care

As noted in *To Err Is Human*, an organized process was begun to examine the U.S. healthcare system. After several expert panels and published reports, it was clear that the system had major problems; however, there have been efforts made to improve since 2004 by more effective implementation of CQI (IOM, 2001a). There has also been some effort to include CQI content in nursing programs, although more is required. Monitoring is now done on an annual basis, with some of the resulting information available to the public and healthcare providers on the Internet.

In addition, the federal government has assumed a major role in monitoring and developing solutions to improve care as well as funding initiatives to improve care. The HHS is the major federal agency responsible for protecting the health of all Americans and providing essential health services. The department has a number of agencies that assist in meeting HHS goals, particularly to better ensure quality care (HHS, 2016a):

- *Centers for Medicare and Medicaid Services (CMS).* Manages all aspects of the Medicare Program and the Medicaid Program. Medicaid is a shared program, functioning at both the federal and the state levels, and Medicare is a federal program.
- *Agency for Healthcare Research and Quality (AHRQ).* Focuses on improving the quality, safety, efficiency, and effectiveness of health care for all Americans. As one of twelve agencies within the HHS, the AHRQ supports research and programs that help consumers, healthcare professionals, and

HCOs make more informed decisions and improve the quality of healthcare services and outcomes.

- *Centers for Disease Control and Prevention (CDC).* Collaborates to create the expertise, information, and tools that people and communities need to protect their health through health promotion, prevention of disease, injury and disability, and preparedness for new health threats; also offers information and resources about workplace safety, although the primary responsibility for this charge rests with the U.S. Department of Labor.
- *Food and Drug Administration (FDA).* Ensures safe use of food, drugs, and medical devices and equipment.
- *Indian Health Service (IHS).* Focuses on providing quality care to Native Americans and Alaskan Native populations.
- *Substance Abuse and Mental Health Services Administration (SAMSA).* Focuses on quality care for substance abuse and mental health needs.
- *Health Resources and Services Administration (HRSA).* Serves as the primary federal agency for improving access to healthcare services for people who are uninsured, isolated, or medically vulnerable, including people living with HIV/AIDS, pregnant women, and mothers and children. HRSA provides leadership and financial support to healthcare providers in every state and U.S. territory. The agency trains health professionals and improves systems of care in rural communities. HRSA oversees organ, bone marrow, and cord blood donation. It supports programs that prepare against bioterrorism, compensates individuals harmed by vaccination, and maintains databases that protect against healthcare malpractice and healthcare waste, fraud, and abuse.
- *National Institutes of Health (NIH).* Seeks fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce the burdens of illness and disability. NIH includes the National Institute of Nursing Research (NINR).

These federal government agencies are not new, but today they have been influenced by the *Quality Chasm* reports and recommendations, leading to an increase in their CQI activities.

The National Quality Forum (NQF), a public–private partnership established in 1999, is now an important organization leading healthcare performance improvement and advising policy makers. Its three-part mission is to improve the quality of American health care by helping set national priorities and goals for quality improvement, to endorse national consensus standards for measuring and publicly reporting on performance, and to promote the attainment of national goals through education and outreach programs (NQF, 2016). The NQF is particularly recognized for establishing NQF-endorsed measures, now considered by many to be the gold standard in measurement, providing advice about CQI measurement to

government agencies and others (Burstin, Leatherman, & Goldmann, 2016). Additional information about its measures is found in the chapters of this text relating to measurement and on the NQF website.

A major source of data about the status of health care is the *National Quality and Disparities Report* (HHS, AHRQ, 2015b). As mentioned earlier, the *Quality Chasm* reports recommended annual monitoring of quality care and also disparities. It is a reporting system that is congressionally mandated and has provided reports since 2003. In 2014, the *NHQR* and *NHDR* reports were combined and are now referred to as one report, *QDR*. The new version combines both the quality and the disparities data and also includes data from the National Quality Strategy (NQS) priorities. Examples of improvement have been noted in a recent report: "hospital care was safer in 2013 than in 2010, with 17 percent fewer harms to patients and an estimated 1.3 million fewer hospital-acquired conditions, 50,000 fewer deaths, and $12 billion in cost savings over three years (2011, 2012, and 2013)" (Kronick, 2015). Adverse events were still a major problem, with 121 adverse events per 1,000 hospitalizations. Tracking quality care is improving, although screening still remains a problem. These reports are typically not focused on the current year because it takes time to collect the data and complete analysis. More detailed and comprehensive current *QDR* data are available at the AHRQ website, which is identified in the Connect to Current Information section at the end of the chapter. The work is not completed; it is ongoing to ensure that there is a health system that meets the NQS priorities of patient safety, person-centered care, care coordination, effective treatment, healthy living, and affordable care.

Disparities

Healthcare disparities, a component of healthcare quality, continue to be of concern throughout the United States, supported by data from the *National Healthcare Quality and Disparities Reports*. It is important, however, to ask whether the implementation of the ACA has made a difference in decreasing disparities. According to the report, the ACA has made a difference; for example, "The uninsurance rate dropped from 40.3 percent to 33.2 percent for Hispanics, and the rate declined from 14.0 percent to 11.1 percent for whites" (HHS, AHRQ, 2016). These figures demonstrate that there is some decrease in uninsurance rates due to implementation of the ACA, but some people have complained of experiencing increased costs. Due to the reimbursement changes, more people, both adults and children, receive care.

Global Healthcare Quality

Quality healthcare is not just a U.S. concern. There is global interest in quality care and initiatives to improve health in many countries. For example, a 2014 issue of the *International Journal for Quality in Health* focused on hospital quality improvement. The WHO has long worked to improve health and healthcare delivery, particularly in developing countries, although their work applies to all countries. The WHO

website devotes space to patient safety (WHO, 2015), accessible through the link in the Connect to Current Information section at the end of the chapter. One of the WHO's initiatives is to apply a surgical unit–based safety program. It provides resources for healthcare provider training about safety and quality, change implementation (e.g., use of checklists, hand hygiene, reduction of bloodstream infections), and patient engagement. These global initiatives reflect the same concerns that are important in U.S. healthcare quality.

Interconnection is a key characteristic of the world today. Informatics allows greater communication and sharing of information, which can improve the quality of care. For example, healthcare providers and researchers can easily share information and collaborate. Problems such as natural or man-made disasters, epidemics, refugee health and social concerns, poor nutrition, impact of war and injuries to civilians, and other problems require that countries work together to ensure greater health and safety for all. Medical technology and healthcare informatics are developed in many countries and then used globally, improving care in more than one country and thereby demonstrating greater collaboration. While modern transportation allows people to travel anywhere, it should be noted that travel does present some risks, such as sharing infectious diseases, which is a particular problem in areas of the world that do not have effective control of diseases.

Stop and Consider #2

Healthcare quality in the United States falls below many countries.

The Vision of Healthcare Quality

In the words of Cosgrove (2013), "Quality is elusive. Not only achieving it. But defining it. Measuring it. Planning it and improving it" (p. ix). The healthcare system has focused sporadically on different aspects of CQI but has now moved to a major emphasis on CQI (Hall, Moore, & Barnsteiner, 2008). From the mid-1970s to today, The Joint Commission and regulatory agencies have agreed that quality care is an important issue. Managed care concerns were the focus from 1980 to 2000. Quality assurance programs were focused on from 1980 through 2008; however, this term is not used today. EBP and health informatics became important in 1990 and continue to expand in all types of HCOs. Quality improvement moved into focus in the mid-1990s, with changes in terminology from quality assurance to quality assessment, quality improvement, and finally CQI. Around 2000, patient safety became more of a concern and is considered to be a dimension of quality care.

Before this text moves into the specifics of quality improvement, it is important to describe the national view of healthcare quality, which is fairly new and has been strongly influenced by the *Quality Chasm* reports and the extensive work done to develop these reports. Quality improvement is related to change, but not

all change is improvement. Knowledge is very important to improvement, but not all knowledge leads to improvement. We need more than knowledge about quality improvement; we must take actions and implement effective changes. The complexity of improvement is one of the difficulties we have in health care, and this complexity is compounded by both the complex healthcare system and the complexity of health problems and treatment for individual patients. None of these challenges, however, should be used as excuses to avoid what must be done: improve care daily, one patient at a time and throughout the system, whether the focus may be at the level of the collective HCO system, the individual HCO level, or the local, state, national, or even global level. To accomplish this goal requires a clear, effective framework that provides direction for planning and implementing CQI.

Vision

Crossing the Quality Chasm (IOM, 2001a) not only extended the examination of the healthcare delivery quality problem, but it also supported steps toward developing a more systematic view of quality care and improvement strategies. **Exhibit 1-2** describes the vision. Included in this vision is the development of a future vision, which is referred to as "new," rules for redesigning the system and improving care that are intended as improvements to current rules (IOM, 2001a, pp. 61–62). The rules are described as follows (Reproduced with permission from Health IT and patient safety: Building safer systems for better care, pp. 39-40, 2012 by the National Academy of Sciences, Courtesy of the National Academies Press, Washington, D.C.):

1. *Care based on continuous health relationships.* Patients should receive care whenever they need it and in many forms, not just face-to-face visits. For example, access to care may also be provided over the Internet, by telephone, through telehealth, and by other means.
2. *Customization based on patient needs and values*. The system of care should be designed to meet the most common types of needs, but it should also be capable of responding to individual patient choices and preferences.
3. *The patient as the source of control*. Patients should be given the necessary information and opportunity to exercise the degree of control they choose over healthcare decisions that affect them. The health system should be able to accommodate differences in patient preferences and encourage decision-making.
4. *Shared knowledge and the free flow of information.* Patients should have unfettered access to their own medical information and to clinical knowledge. Clinicians and patients should communicate effectively and share information.
5. *Evidence-based decision-making.* Patients should receive care based on the best available scientific knowledge. Care should not vary illogically from clinician to clinician or from place to place.

Exhibit 1-2 Rules for the 21st-Century Healthcare System

Current Approach (Old Rule)

Care is based primarily on visits.
Professional autonomy drives variability.
Professionals control care.
Information is a record.
Decision making is an individual responsibility.
Do no harm is an individual responsibility.
Secrecy is necessary.
The system reacts to needs.
Cost reduction is sought.
Preference is given to professional roles over the system.

New Rule

Care is based on continuous healing relationships.
Care is customized according to patient needs and values.
The patient is the source of control.
Knowledge is shared and information flows freely.
Decision making is evidence based.
Safety is a system property.
Transparency is necessary.
Needs are anticipated.
Waste is continuously decreased.
Cooperation among clinicians is a priority.

Source: Reproduced with permission from Health IT and patient safety: Building safer systems for better care, pp. 39–40, 2012 by the National Academy of Sciences, Courtesy of the National Academies Press, Washington, D.C.

6. *Safety as a system property.* Patients should be safe from injury caused by the care system. Reducing risk and ensuring safety require greater attention to systems that help prevent and mitigate errors.
7. *The need for transparency.* The healthcare system should make information available to patients and their families so that they can make informed decisions when selecting a health plan, hospital, or clinical practice or when choosing among alternative treatments. This information should include a description of the system's performance in achieving measures relating to quality, EBP, and patient satisfaction.

8. *Anticipation of needs.* The health system should anticipate patient needs, rather than simply react to events.
9. *Continuous decrease in waste.* The health system should not waste resources or patient time.
10. *Cooperation among clinicians.* Clinicians and institutions should actively collaborate and communicate to ensure an appropriate exchange of information and coordination of care.

These rules should not be viewed as a list of choices, but rather a package that is needed to improve care (IOM, 2001a). This perspective crosses all types of healthcare settings and applies to all healthcare professions. Since the publication of these rules, much has been done to address them, but much more is still required. Content in this text relates to all of these rules, and CQI models embed many, if not all, of these rules in their approaches. One can also see how they are related to the six aims or goals identified in the following section and can then compare them with the five healthcare professions core competencies. The work done in the *Quality Chasm* reports connected the elements discussed so that in the end there would be a complete picture.

Aims

Crossing the Quality Chasm also developed six aims or goals. Clear direction and leadership are needed to improve health care, and these aims provide that direction. The six aims or goals identified to guide this process are described as follows (IOM, 2001a, pp. 39–40):

1. *Safe.* Avoiding injuries to patients from the care that is intended to help them
2. *Timely.* Reducing waits and sometimes harmful delays for both patients who receive and those who give care
3. *Effective.* Providing services based on scientific knowledge to all patients who could benefit from those services and refraining from providing services not likely to benefit the patient
4. *Efficient.* Avoiding waste of equipment, supplies, ideas, and energy
5. *Equitable.* Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status
6. *Patient-centered.* Providing care that is respectful of and responsive to individual patient preferences, needs, and values, ensuring that patient values guide all clinical decisions

Some organizations refer to the aims as STEEEP. Each one of the aims is now important in healthcare delivery and in CQI. These aims are emphasized in this text and should be integrated into nursing education and nursing practice.

Framework for Monitoring Quality

As mentioned earlier, monitoring care is required to effectively improve care, and the AHRQ now monitors care annually. Federal legislation mandates this monitoring. In 2014, substantial changes were made in this monitoring and annual reporting. As noted earlier, the *QDR* has expanded to include more on performance (assess performance; identify areas that are improving and need improvement), disparities data, and the tracking progress of NQS priorities. Electronic access to this report has also been expanded. As described by the HHS (2016):

> The *QDR* provides a comprehensive overview of the quality of health care received by the general U.S. population and disparities in care experienced by different racial, ethnic, and socioeconomic groups. The report is based on more than 250 measures of quality and disparities covering a broad array of health care services and settings.

The current *QDR* is not the same as the original reports, but the original reports provided the base for this monitoring and allowed experimentation and adaptation to improve the monitoring and methods for reporting results. Integrated in the *QDR* framework and monitoring are the quality improvement elements mentioned previously, aims, definitions, vision, and so on. There is greater integration today of multiple views of CQI, but there is also still some confusion and need for more organized approaches, as will be noted in other chapters.

System Approach

With greater interest in viewing health care as a system comes greater emphasis on understanding the healthcare system in order to improve it. In addition, with efforts to establish a patient-centered approach to care, understanding how the patient views the healthcare system is also important.

Macroviews and Microviews of Healthcare Quality

There are two important approaches to viewing the overall picture of healthcare quality—the macroview and the microview. The **macroview** of healthcare quality focuses on the broader issues from a local, state, federal, or even global perspective. At this broad level, there is much interaction not only between people and healthcare providers, but also between services and funding. This funding may be provided by local, state, or federal sources, but federal sources provide a lot of the funding for healthcare services and research. The national reports on healthcare quality and disparities are examples of the macroview of CQI. The **microview** of healthcare quality focuses on the healthcare provider, which can be an HCO or individual healthcare provider such as a physician, nurse, or pharmacist. The macroview provides many of the standards that are used to assess care as well as regulate care, whereas the

microview implements and ensures that these standards are met and, if not, makes changes to improve care at the patient care level.

Health care today is complex, and so it is not always easy to separate these perspectives. For example, when people travel, they interact with healthcare delivery systems nationally or globally. Both views must use the same terminology and measurement, share information, apply a similar understanding of the roles of all providers, collaborate, and provide patient-centered care. Such a system, however, has not yet been realized.

Macrosystem, Mesosystem, and Microsystem

Within the microview of the healthcare delivery system is the **macrosystem**. An example of the macrosystem is the HCO (e.g., a hospital or a medical corporation with multiple hospitals). Within the macrosystem are the mesosystems and the microsystems (Nelson et al., 2008). If the macrosystem is a large multistate corporation, then the mesosystem might be individual HCOs within the system such as a hospital or a home health agency that is part of the healthcare system. Within one HCO, the **mesosystems** are departments, clinical centers, or services. Regardless of the type of organizational structure, drilling down to the microsystem level is critical in improving care. It is at this level that most nurses practice, and they have the most to offer in improving care. **Microsystems** are the clinical units, the smallest unit of the system, and it is here that the patient has the most influence.

Nurses work within all of these systems and need to understand them and how they impact nurses and nursing practice—structures, processes, and outcomes. Healthcare systems are neither simple nor stagnant; they change, requiring adaptation. **System thinking**, seeing the whole, how its parts interrelate, and how these parts all impact workflow, is important for success. This type of thinking is an integral part of effective CQI, allowing us to prevent, identify, and lessen the harm of errors; use problem solving and critical thinking along with clinical reasoning and judgment to make sound decisions based on best evidence; plan and use effective timelines; use interprofessional teams; and evaluate to determine outcomes. As stated by Fallon, Begun, and Riley (2013), "Systems thinking encourages consideration of unintended consequences of an intervention. Unintended consequences are results that are different from the outcomes expected as a result of a purposeful action" (p. 220). When nurses focus only on what they are doing each day, their views and options are limited and improved care will not occur.

Need for Definitions

Definitions are important in CQI. If the CQI process is undertaken with unclear definitions or if staff involved in any step of the process use different definitions, then data and outcomes will be negatively impacted. For example, if two people are

measuring the length of the same room and each person is using a different definition for a foot, then it will not be possible to compare the results. While this logic may seem rather obvious, in healthcare quality there has been limited consensus on definitions of critical terms. The *Quality Chasm* reports build on one another, defining terms and then using them consistently across the reports. Defining key terms, such as quality, safety, and error, was a critical part of developing a clear framework, and the effort to standardize terminology remains crucial to the CQI process; indeed, it is embraced by this text.

The definition of quality care used in the *Quality Chasm* reports and mentioned earlier in this chapter (IOM, 2001a) supports earlier work by Donabedian (1980). Donabedian described quality care as having three elements: structure, processes, and outcomes. As the topic of CQI is examined in this text, it is important to keep this definition in mind along with the three elements of quality. When **structure** is examined, the focus is on how the organization's elements are put together and how this coming together of parts impacts quality. This view recognizes that an organization is a system that has parts, and a thorough understanding of it considers both the whole and the parts. When **process** is reviewed, the focus is on how the parts of the system function independently and interact. **Outcomes** are critical; considering them turns the focus to results. Historically, healthcare professionals had problems agreeing on a universally accepted definition of quality care. The *Quality Chasm* reports' definition, noted in this chapter, was used as the guide in developing a vision, goals, a proposed framework to monitor care, and recommendations. It has been used by many of the major CQI initiatives that followed.

CQI is defined as "a structured organizational process for involving personnel in planning and executing a continuous flow of improvements to provide quality healthcare that meets or exceeds expectations and usually involves a common set of characteristics" such as staff education, CQI teams, inclusion of CQI in HCO planning, and commitment and engagement to CQI (Sollecito & Johnson, 2013, pp. 4–5). Quality improvement has also been influenced by approaches and methods found in other businesses—for example, safety in the aviation industry. Key strategies to achieve improved quality include the following (Draper et al., 2008, p. 3):

- Having supportive hospital leadership and keeping them actively engaged in the work
- Setting expectations for all staff—not just nurses—that quality is a shared responsibility
- Holding staff accountable for individual roles
- Inspiring and using physicians and nurses to champion efforts
- Providing ongoing, visible, and useful feedback to engage staff effectively
- Applying the most current and rigorous techniques of the scientific method and statistical process control

Today, CQI is the most common approach used to improve care that supports the definition of quality care found in this chapter. As the topic of CQI is further examined in this text, there will be continued discussion of what it means and how it is implemented to achieve positive outcomes.

Stop and Consider #3

The most accepted view of healthcare quality is the application of STEEEP.

Value and Cost

Although some may find this claim difficult to accept, cost and quality are connected. The U.S. healthcare system is the most expensive healthcare system in the world, and yet it does not have the best quality. In one study that examined costs associated with harm while hospitalized, results noted that there were increased total costs, variable costs, and length of stay, and these factors had a negative impact on the long-term hospital finances. This problem will increase as healthcare delivery focuses more on value and performance rather than focusing just on volume (Adler et al., 2015). However, increasing cost does not necessarily mean better care. We must get much better at providing efficient *and* effective care. The report *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America* presents

> a vision of what is possible if the nation applies the resources and tools at hand by marshaling science, information technology, incentives, and care culture to transform the effectiveness and efficiency of care—to produce high-quality health care that continuously learns to be better. (IOM, 2012, p. ix)

The report recognizes that there is a connection between cost and quality, and it needs to be addressed. **Figure 1-2** describes missed opportunities in reducing waste and harm. These missed opportunities act as barriers to best care at lower cost and are discussed throughout this text.

To achieve the goal of best care at lower cost, the healthcare system needs to manage the ever-increasing complexity and reduce ever-increasing costs (IOM, 2012). Discussed in this text, other reports emphasize the complexity and rapidly expanding knowledge (science and research) within the healthcare system; such reports focus on EBP, clinical guidelines, and comparative research (IOM, 2011b, 2011c, 2011d). In general, the U.S. healthcare system needs to improve care while reducing expenses and waste, consider the cost of care, and determine if the cost is reasonable, such as the extremely high costs of some medications and treatments (Rockoff & Silverman, 2015).

Addressing the key concerns found in Figure 1-2, *Best Care at Lower Cost* concludes with the overall recommendation of achieving a learning healthcare

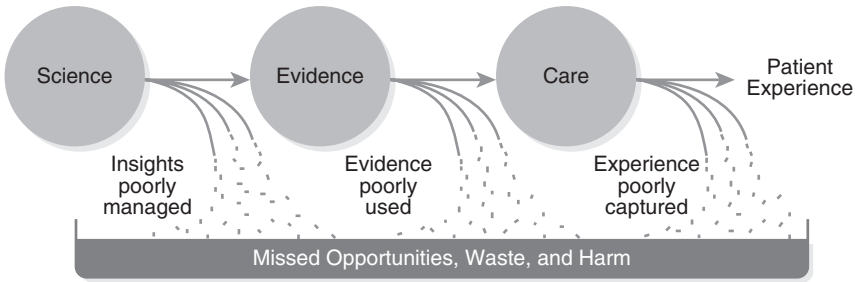

Figure 1-2 Schematic of the Healthcare System
SOURCE: Reproduced with permission from Health IT and patient safety: Building safer systems for better care, pp. 39–40, 2012 by the National Academy of Sciences, Courtesy of the National Academies Press, Washington, D.C.

system. What is meant by the learning healthcare system discussed in this critical report? A **learning healthcare system**

> links personal and population data to researchers and practitioners, dramatically enhancing the knowledge base on effectiveness of interventions and providing real-time guidance for superior care in treating and preventing illness. A healthcare system that gains from continuous learning is a system that can provide Americans with superior care at lower cost. (IOM, 2012, p. ix)

As we discuss CQI throughout this text, there will be themes, and the descriptors in this recommendation represent one of them.

Examples of some of the CDC data on U.S. healthcare expenditures include the following (HHS, CDC, 2016): National health expenditures for 2013 were $2.9 trillion and for 2014 were $3.0 trillion. Percentage of health expenditures for hospital care with comparison of change from 2013 and 2014 was 32.1% (32.1%); nursing home and continuing care retirement, 5.3% (5.1%); physician and clinical services, 20.1% (19.1%); and prescriptions, 9.3% (9.8%). Current CDC data are found at the CDC website.

Data comparing the United States with other countries indicate that the United States spends more on health care. According to the World Bank (2015),

> total health expenditure [or the total percentage of the gross domestic product relating to health care] is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

The rates for the United States for 2011, 2012, and 2013 were 17.1%, 17.0%, and 17.1%, respectively. These rates are higher than those found in the United Kingdom, France, or Germany.

When comparing measures of access, equity, quality, efficiency, and healthy lives, the United States ranks last in a 2013 list of 11 countries (Australia, Canada, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland,

United Kingdom, United States) (Commonwealth Fund, 2014). In this ranking, the United States has the highest cost and poorest performance. This finding occurs despite the implementation of many ACA provisions, though the United States is still in the early stages of the ACA's implementation. It is hoped the ACA will have greater impact on improving access and care and reducing costs in the years to come. It is also important to note that many of the countries in the ranking have universal healthcare coverage, which the United States does not have. Detailed findings about the U.S. healthcare rankings include the following (Commonwealth Fund, 2014):

- *Healthy lives.* The United States ranks last in infant mortality rankings and in deaths that were potentially preventable with timely access to effective health care; it ranks second to last in healthy life expectancy, at age 60 years.
- *Access to care.* People in the United States have the hardest time affording the health care they need. The United States ranks last in every measure of cost-related access. More than one-third (37%) of U.S. adults reported forgoing a recommended test, treatment, or follow-up care because of cost.
- *Healthcare quality.* The United States ranks in the middle for two of four measures of quality—effective care (3rd out of 11 countries) and patient-centered care (4th out of 11 countries); however, it does not perform as well providing safe or coordinated care.
- *Healthcare efficiency.* The United States ranks last due to low marks on the time and dollars spent dealing with insurance administration, lack of communication among healthcare providers, and duplicative medical testing. Forty percent of U.S. adults who visited an emergency room reported they could have been treated by a regular doctor had one been available. This is more than double the rate of patients in the United Kingdom.
- *Equity of healthcare.* The United States ranks last in this category. About 4 out of 10 (39%) adults with below-average incomes in the United States reported a medical problem but did not visit a doctor in the past year because of costs, compared with less than 1 out of 10 in the United Kingdom, Sweden, Canada, and Norway. There were also large discrepancies between the length of time in the United States that lower-income adults waited for specialists, emergency care, and after-hours care compared with higher-income adults.

We have better data now than we did in 1999 when the NAS/HMD began to examine care and published the first *Quality Chasm* report, *To Err Is Human*; however, current data do not demonstrate enough improvement. The reasons for providing these examples in this chapter is to present you with a better picture of how cost and quality are connected. An important change related to the cost of care and how

it relates to quality is the amplified emphasis on **pay for performance**. This emphasis can be positive, as it may stimulate improvement, but it can also be problematic if providers are focused on "how they appear" rather than actually providing quality care. For example, an opinion column published in the *New York Times*, written by a surgeon, noted that there are problems with using quality report cards when reported information may be used to penalize physicians, and this may then influence physicians to be too cautious (Jauhar, 2015; McCabe, Joynt, Welt, & Resnic, 2013). As stated by Jauhar (2015), "Surgical report cards are a classic example of how a well-meaning program in medicine can have unintended consequences. . . . It would appear that doctors, not patients, are the ones focused on doctors' grades—and their focus is distorted and blurry at best" (p. A27).

The *QDR* examines not only quality but also some measures of affordability of care, although few of its measures are used for this concern. The 2014 report, reflecting on 2013 data, indicates some problems with affordability. It worsened over time from 2002 to 2010, particularly for (1) people who indicated a financial or insurance reason for not having a usual source of care and (2) people unable to get or delayed in getting needed medical care, dental care, or prescription medicines due to financial or insurance reasons (HHS, AHRQ, 2015b). The affordable care measures include access to care problems due to healthcare costs and inefficient care due to use of services associated with more harm than benefits. The ACA has already had some impact on decreasing these problems.

The NQS cost of care priority focuses on providing affordable care or reducing the cost of quality health care for individuals, families, employers, and government. This priority is associated with paying, rewarding, and incentivizing providers to deliver high-quality, patient-centered care. The focus needs to move from volume to value in the purchase of health care or quality. Value-based purchasing is also a provision included in the ACA. How does the legislation support this change? First, it supports the NQS as the national framework for healthcare quality. In addition, it recommends the use of standardized quality measures, advocates for investment in CQI programs, recommends increased connection between quality performance and payment for Medicare payment, and encourages greater alignment between private and public purchasing of care. There are challenges to measurement that need to be considered; for example, measures need to be accurate and reliable and should not set up a scenario where the provider and others view the measures as the end point and thus limit the understanding of quality care. Healthcare measurement at this point is weak. Measurement is an important topic discussed in this text.

Stop and Consider #4

Value and cost in health care are not the same.

Healthcare Reform and Quality Improvement: Affordable Care Act of 2010

The ACA, often referred to as healthcare reform, primarily focuses on reimbursement with its provisions to reduce the number of uninsured and underinsured. It does not establish a universal health system for the United States. The United States is unusual in that most developing countries have universal healthcare coverage; however, to date, there has been insufficient political support in the United States for this type of coverage. The ACA continues to be a point of political contention. In 2012 and again in 2014, the Supreme Court upheld the law, although it did give more flexibility to states regarding use of Medicaid. It also was an issue in the 2016 presidential race. In 2014, the number of uninsured U.S. citizens was 32 million, a decrease of nearly of 9 million since 2013. In early 2016, the number was 20 million, or 9.1% of the overall population, with an estimated 20 million people gaining insurance coverage since the passage of the ACA in 2010 (HHS, 2016b). There were also major changes in increased enrollment of critical groups: young adults, racial minority groups, and ethnic groups. Because the implementation of the ACA spans several years, data on the insured and uninsured will change.

The law has also had an impact on nursing education and practice and areas that are related to CQI. Examples of these provisions include the following:

- Funding—grants and loans for students and faculty
- Education and training funds focused on geriatrics
- Primary care: advanced practice traineeships
- Funding for nurse-managed clinics
- Health prevention and public health
- Increased workforce diversity
- Community-based transition programs
- Establishment of the Patient-Centered Outcomes Research Institute
- Efforts toward nondiscrimination in health care
- Continued support for the Preventive Services Task Force
- Creation of the National Health Care Workforce Commission

This text does not focus on the ACA, but rather discusses how it impacts, or might impact, quality improvement.

Integration of Quality Improvement in Healthcare Reform

A major goal of the ACA is to expand coverage to millions of uninsured Americans (Majerol, Newkirk, & Garfield, 2015). The legislation does recognize that to focus solely on cost and reimbursement is not helpful, as the U.S. healthcare system needs to also improve healthcare delivery. Access to care may be a barrier to achieving

positive health outcomes; for example, postponing care or not getting it at all, not taking medications regularly due to cost, and so on, lead to poor health outcomes, and in this respect, reimbursement and costs impact the quality of care that people receive. This concern led to the addition of provisions to the ACA relating to quality improvement. Appendix A identifies some of these provisions.

CQI has been greatly affected by other recent national legislation, such as the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the American Recovery and Reinvestment Act (ARRA) of 2009, and the Health Information Technology for Economic and Clinical Health (HITECH) Act, which requires the establishment of a National Coordinator for Health Information Technology in HHS (Fallon et al., 2013). ARRA provides funding to assist physicians in adopting electronic records. As of 2015, to avoid Medicare payment penalties, physicians who care for Medicare patients must use electronic records. HITECH also requires that physicians document clinical quality measures. The ACA requires greater reporting of measures to ensure quality and establishes the NQS. States have also moved to more direct monitoring of healthcare quality by requiring reporting for serious adverse events.

As discussed in this chapter, the *Quality Chasm* reports brought the problem of healthcare disparities to the forefront (IOM, 2001a, 2002, 2003e, 2004b). The ACA is not developed to specifically address the problem of disparities; however, it is now recognized that it is difficult to resolve issues of reimbursement, cost, access, and quality without consideration of disparities. For example, health literacy is discussed in the ACA as a provision "to communicate health and healthcare information clearly; promote prevention; be patient-centered and create medical or health homes; assure equity and cultural competence; and deliver high-quality care" (Somers & Mahadevan, 2010, p. 4).

Current Status of the Implications of the Affordable Care Act and Quality Health Care

Since 1999, we have been able to get a better picture of the healthcare delivery system with the annual *QDR*. In 2014, the journal *Patient Safety and Quality Healthcare*, which began publishing in 2004, devoted its August issue to the future, asking patient safety experts to look 5 years into the future and describe the status of healthcare quality. Generally, the comments predicted modest improvement focused on continuing progress with current changes in the CQI process. Carr (2014) reports the following expert opinion:

> Former hospital CEO Paul Levy predicted that healthcare will continue to be "'islands of excellence surrounded by a sea of mediocrity" because medical education is largely unchanged and hospital leaders are focused more on market concentration and the bottom line than on safety and quality.

Other experts share this view, as Carr (2014) further elucidates:

> Jim Conway, adjunct lecturer at the Harvard School of Public Health, . . . reminds us that there is no end to that journey and expects that "sustainability" will be a new challenge, especially for organizations that engage in isolated, limited improvement projects. Sustainability comes from system-wide commitment to continual improvement. Organizations that work to embody the principles of high reliability know that sustaining the gains they have made means never taking those gains for granted or believing that past or even performance offers protection from future hazards.

Why do problems persist despite some improvement? The work described in the *Quality Chasm* reports clarified many of the problems, but Fineberg, who led the IOM [NAS/HMD] for many years, identifies some of the critical inefficiencies that also continue to cause current problems in the healthcare system (Fineberg, 2012, p. 1023):

- Less emphasis on patient outcomes in the payment system
- Reward for inefficiency such as complications and readmissions
- Indifference of providers to reduce costs; lack of personal and professional concern about this problem
- Failure to take full advantage of professional skills of nurses
- Lack of uniform systems and processes to ensure safe and high-quality care
- Problems with patient flow, use of services, overcrowding (such as in emergency departments delaying treatment and admissions)
- Insufficient involvement of patients in decision-making
- Insufficient attention to prevention, disparities, primary care, health literacy, population health, and long-term results
- Fragmented and uncoordinated delivery, without continuity of care
- Lack of information on resource costs, performance, comparative effectiveness, quality of care, and health outcomes
- Scientific uncertainty about effectiveness and cost
- Cultural predisposition to believe that more care is better
- Administrative complexity related to multiple insurers
- Fraud and a problematic malpractice system

There are other issues, but the issues listed here summarize the key points.

Stop and Consider #5

The ACA is not legislation that supports universal health coverage in the United States, and its major focus is not on quality care but rather reimbursement.

An Important Step Toward Improvement: National Quality Strategy

As discussed throughout this chapter, the *Quality Chasm* reports and similar initiatives focused the U.S. healthcare system on CQI. There was a great need to identify the problems and examine approaches to addressing them. Laying the groundwork and then recommending annual monitoring of healthcare quality and disparities were major steps toward a healthcare environment that commits to quality at its core. There was, however, still a need to have a clearer overall national perspective of CQI. The *Quality Chasm* reports and other sources such as the Institute for Healthcare Improvement provided initial ideas for a framework.

One of the ACA provisions related to quality improvement is the establishment of the National Quality Strategy (NQS), which addresses the need for a national quality improvement framework and adds an additional focus on population health and reduction in healthcare disparities (Burstin et al., 2016; HHS, AHRQ, 2015c). Since the publication of the first *Quality Chasm* report in 1999, it took 12 years for the federal government to develop this national framework for healthcare quality. A variety of theories and models supporting improvement had an impact on the NQS. There is additional information about quality improvement theories and models in other chapters of this text. It is important in this chapter, which focuses on the introduction of CQI, to recognize the importance of the NQS and understand its framework and implications of its use.

Development and Purpose of the National Quality Strategy

The NQS is now an important part of the national initiative to improve care. As required by the ACA, the development of the NQS framework was led by the AHRQ. To ensure a collaborative effort, the AHRQ included feedback from over 300 stakeholders representing the federal government, especially the HHS; the states; the private sector; and multi-stakeholder groups such as healthcare professional organizations and the recommendations found in the *Quality Chasm* series. An evidence-based approach was used to develop the NQS.

In a 2011 press release, the HHS commented that the NQS was a groundbreaking initiative supporting an approach that quality care can be measured and improved at multiple levels—namely at the level of the community, practice settings, and individual physicians (HHS, 2011). A critical problem noted was there were too many measures and no control or evaluation of them. This problem has led to redundancies and some overlap in measurement, which impacts the value of results. More systematic methods are needed to measure care quality and maintain the CQI process. Patient-centered care needs to be at the core of the NQS, as it is now considered the core concern in care delivery. The major purpose of the NQS is to provide a national approach to measure quality and ensure higher-quality care for all.

National Quality Strategy Design

The NQS consists of three aims, six priority strategies for improvement, and levers. The NQS is also working toward greater measure alignment across the HHS to establish core sets of measures that would be useful and meaningful for different groups of stakeholders. This effort is motivated by the concern about the proliferation of measures.

Aims

The three NQS aims are based on the Triple Aim framework and incorporate elements of STEEEP. It is recommended that HCOs adopt all of the aims. The Triple Aim is discussed in other sections of this text, but it is important to introduce it at the beginning of the discussion about quality improvement due to its influence on the NQS (HHS, AHRQ, 2015a):

1. *Better Care.* Improve the overall quality, by making health care more patient-centered, reliable, accessible, and safe.
2. *Healthy People in Healthy Communities.* Improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher-quality care.
3. *Affordable Care.* Reduce the cost of quality health care for individuals, families, employers, and government.

The second aim is important because it illustrates how various initiatives are connected to the NQS. An effective national view of quality requires collaborative initiatives and a consistent framework. Healthy People in Healthy Communities has been an important national healthcare initiative for many years, identifying and tracking objectives and measures/indicators for health improvement (Healthy People, 2015; HHS, CDC, 2015). With development of the NQS, these long-standing programs are brought into the overall national strategy.

Prioritizing Strategies

The aims connect to the six priorities and strategies, examining the most common health concerns. It is recommended that HCOs use the NQS priorities to guide efforts to improve health and healthcare quality. The six priorities are as follows (HHS, AHRQ, 2015a):

- Making care safer by reducing harm caused in the delivery of care
- Ensuring that each person and family is engaged as partners in their care
- Promoting effective communication and coordination of care

- Promoting the most effective prevention and treatment practices for leading causes of mortality
- Working with communities to promote wide use of best practices to enable healthy living
- Making quality care more affordable for individuals, families, employers, and government by developing and spreading new healthcare delivery models

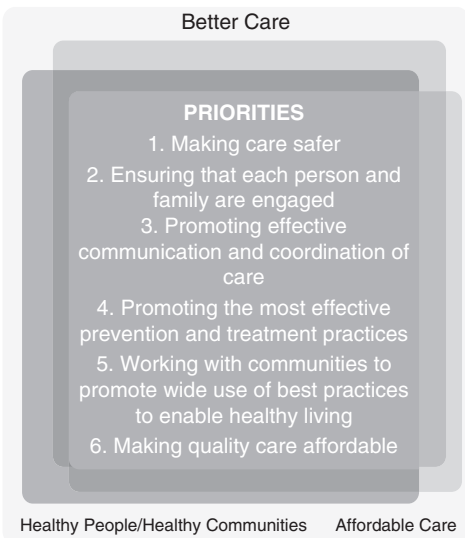

Figure 1-3 National Quality Strategy Three Aims and Six Priorities.
SOURCE: Reproduced from Centers for Medicare and Medicaid Services, Center for Clinical Standards and Quality. (2015). 2015 national impact assessment of the Centers for Medicare & Medicaid Services (CMS) quality measures report. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Downloads/2015-National-Impact-Assessment-Report.pdf.

Levers

Nine levers are identified for the strategies. Each lever "represents a core business function, resource, and/or action that stakeholders can use to align to the strategy. In many cases, stakeholders may already be using these levers but have not connected these activities to NQS alignment" (HHS, AHRQ, 2015a). In addition to developing a national framework, the NQS also addresses the problem of too many measures and the negative impact that this has on CQI and healthcare providers. It results in confusion, lack of consistency, and disorganization. Given the description of a healthcare system that is dysfunctional having a CQI approach that is also confusing is not helpful. The levers are identified in **Figure 1-4**. The relationship between the aims and the levers is found in **Figure 1-5**. It is recommended that HCOs focus on at least one of the levers.

Federal healthcare programs now apply the NQS. It is recommended that other healthcare programs—both private and public—adopt the NQS; however, it is not required. The AHRQ provides tools and resources to support implementation of the NQS (HHS, AHRQ, 2015c). The NQS must provide an annual report to Congress,

and the reports are posted on the AHRQ website. The 2015 congressional report states the following:

> Across the nation the National Strategy for Quality Improvement in Health Care (NQS) brings together federal agencies, healthcare payers, purchasers, providers, consumers, and other partners in pursuit of improved health and health care for all Americans. The NQS serves as a framework for aligning stakeholders across private and public sectors at the federal, state, and local levels. (HHS, 2015)

National Quality Strategy Levers			
Lever	**Icon**	**Definition**	**Example**
Payment		Reward and incentivize providers to deliver high-quality, patient-centered care.	Join a regional coalition of purchasers that are pursuing value-based purchasing.
Public Reporting		Compare treatment results, costs, and patient experience for consumers.	A regional collaborative may ask member hospitals and medical practices to align public reports to the National Quality Strategy aims or priorities.
Learning and Technical Assistance		Foster learning environments that offer training, resources, tools, and guidance to help organizations achieve quality improvement goals.	A Quality Improvement Organization may disseminate evidence-based best practices in quality improvement with physicians, hospitals, nursing homes, and home health agencies.
Certification, Accreditation, and Regulation		Adopt or adhere to approaches to meet safety and quality standards.	The National Quality Strategy aims and priorities may be incorporated into continuing education requirements or certification maintenance.
Consumer Incentives and Benefit Designs		Help consumers adopt healthy behaviors and make informed decisions.	Employers may implement workforce wellness programs that promote prevention and provide incentives for employees to improve their health.
Measurement and Feedback		Provide performance feedback to plans and providers to improve care.	A long-term care provider may implement a strategy that includes the use of Quality Assurance and Performance Improvement data to populate measurement dashboards for purposes of identifying and addressing areas requiring quality improvement.
Health Information Technology		Improve communication, transparency, and efficiency for better coordinated health and health care.	A hospital or medical practice may adopt an electronic health record system to improve communication and care coordination.
Workforce Development		Investing in people to prepare the next generation of health care professionals and support lifelong learning for providers.	A medical leadership institution may incorporate quality improvement principles in their training.
Innovation and Diffusion		Foster innovation in health care quality improvement, and facilitate rapid adoption within and across organizations and communities.	Center for Medicare & Medicaid Innovation tests various payment and service delivery models and shares successful models across the Nation.

Figure 1-4 National Quality Strategy Levers

SOURCE: Reproduced from U.S. Department of Health and Human Services. (2014). National Quality Strategy: Using Levers to Achieve Improved Health and Health Care. Retrieved from http://www.ahrq.gov/workingforquality/reports/nqsleverfactsheet.htm

Figure 1-5
Relationship of the National Quality Strategy Aims and the Levers
Reproduced from U.S. Department of Health and Human Services. (2016). National Quality Strategy: Overview [PowerPoint presentation]. Retrieved from http://www.ahrq.gov/workingforquality/nqs/overview2016.pptx

How should the healthcare delivery system implement the NQS (HHS, AHRQ, 2015d)? It is hoped that HCOs are knowledgeable about the NQS and adopt its elements as recommended. Adopters should also include healthcare profession education programs such as all nursing degree programs, which should include this content and ensure that nursing students at all levels know about NQS and can apply it to their practice. The overall goal is an effective healthcare delivery system that is consistent and emphasizes CQI from the same perspective. The NQS website offers resources such as tools and reports for healthcare providers and policy makers. The Connect to Current Information section at the end of the chapter provides a link to this site.

Current Status of the National Quality Strategy

The NQS priorities are patient safety, person-centered care, care coordination, effective treatment, healthy living, and care affordability. As noted previously, they are monitored as part of the annual *QDR*. This information is then included in the annual NQS report to Congress (HHS, 2015; HHS, AHRQ, 2015b). Multiple healthcare organizations and government agencies participate in providing data for the report. **Figure 1-6** provides an overview of how the NQS works.

Stop and Consider #6
Up until the development of the National Quality Strategy, the United States had no clear national healthcare perspective.

Introduction to Leadership, Interprofessional Teamwork, and Nursing Responsibility for CQI

Leadership, including nursing leadership, is required in all phases of CQI. HCO leaders ensure that CQI is part of all aspects of the organization, including the mission, goals and objectives, organization, processes, policies and procedures,

Figure 1-6 National Quality Strategy: How It Works

Reproduced from U.S. Department of Health and Human Services (2016). National Quality Strategy: Overview [PowerPoint presentation]. Retrieved http://www.ahrq.gov/workingforquality/nqs/overview2016.pptx

position descriptions and performance appraisal, and all aspects of clinical practice. They must work to integrate standards, accreditation requirements, staff education, ethics, and legal requirements into the organization, as discussed in other sections of this text. Teamwork is critical to successful CQI, and leaders in the HCO must provide support to teams with resources, guidance, and staff education about teams. As articulated by Gantz and colleagues (2003), "Quality improvement and performance should be a way of life for best practices and high performers who seek to understand, change, improve, and enhance patient care outcomes" (p. 329).

Nurses usually think of nursing leaders as being in management or administration positions; however, every nurse needs to be a leader and develop leadership competencies (Finkelman, 2016). These competencies are needed as nurses provide care working with teams, advocating for patients, and engaging in CQI in direct care. Nurses also need these competencies when they participate in organizational activities such as committees, task forces, and other situations where professional issues are considered and nurses need to share the nursing perspective. *The Future of Nursing* report includes the following recommendation: "expand opportunities for nurses to lead and diffuse collaborative improvement efforts" (IOM, 2010a, p. S-9).

Responsibility for CQI is the core issue in this text. Every healthcare profession has the responsibility to (1) ensure that its educational programs prepare graduates who can apply quality improvement in their individual practice and participate in CQI programs within HCOs and (2) actively commit to improving care in all types of healthcare settings. These objectives are not simple to accomplish. CQI has not always been an important content topic in healthcare professions education, including nursing. It is mentioned, of course, but there is typically limited in-depth examination of quality care and methods to improve care—although this situation is slowly improving. One of the five healthcare professions core competencies is to apply quality improvement, and this core competency is tied to the other four core competencies, with all needed to effectively continuously improve care.

The *Quality Chasm* series has had an impact on the entire healthcare system. Not only has the recognition of CQI as a professional responsibility influenced how HCOs view quality care and how the government at local, state, and federal levels works toward improving care, but also now there is much more emphasis on the role of individual healthcare providers—and in this text, the focus is on nurses. CQI is not something that is just done by a single department in an HCO with staff occasionally hearing about it. It must be part of daily work and the provision of care, and it must impact all staff, both professional and nonprofessional. Each staff member must ask: How can I improve what I do?

Stop and Consider #7

Nursing needs to develop more leadership in quality improvement.

Conclusions

This chapter sets the stage for an in-depth examination of the healthcare system from the perspective of quality care and the roles and responsibilities of nurses in CQI. This is a complex area, involving many viewpoints and methods. Nurses should assume more CQI responsibilities at the point of care and within HCOs. This chapter provides background information and an overview of our current knowledge of CQI so that nurses will be well informed as they begin their journey toward competence in quality improvement. Fineberg frames this journey well with the following words:

> To achieve a successful and sustainable health system, we must be able and willing to try many different things. But therein lies a unifying idea: Do many things. No single stroke will solve this problem. A successful and sustainable health system will not be achieved by supporting prevention, it will not be achieved by championing competition, it will not be achieved by comparing the effectiveness of different practices, it will not be achieved by striking commercial influence from professional decision-making, it will not

be achieved by changing the way we pay doctors, and it will not be achieved by just reengineering the system. It requires all these changes and more. We need the cleverness of the fox and the persistence of the hedgehog. We must be willing to adopt many strategies and use them to reach one big goal. (p. 1026)

Apply CQI

Chapter Highlights

- Concern about the quality of health care in the United States has been particularly high since 1999 when a report (*To Err Is Human*) was published, followed by a number of other critical reports referred to as the *Quality Chasm* reports.
- The Institute of Medicine (IOM), whose name has been changed to the National Academy of Sciences, Health and Medicine Division (NAS/HMD), has a major role in examining healthcare quality through its review panels and published reports with recommendations.
- Five healthcare professions core competencies were identified by one of the major reports, *Health Professions Education* (2003), and apply to all healthcare professions.
- The *Quality Chasm* reports identified the need for national annual reports on healthcare quality and disparities that are now administered by the Agency for Healthcare Research and Quality (AHRQ) (through the *National Healthcare Quality and Disparities Report* [*QDR*]).
- Continuous quality improvement (CQI) is now a major concern of all healthcare organizations (HCOs) and professions, with emphasis on STEEEP.
- Based on data and reports that indicate certain populations do not receive equitable care, leading to healthcare disparities, diversity in health care and disparities are now integrated into the need for improvement.
- Healthy People 2020, a national health initiative, guides views of healthy individuals and communities.
- U.S. healthcare does not rate as high as it should when compared to other countries' healthcare systems.
- *The Quality* Chasm reports provide a vision of U.S. health care that is now incorporated into many quality improvement initiatives.
- Macro- and microviews of healthcare quality are integrated into CQI. The macrosystem, mesosystem, and microsystem should be understood for each HCO.
- Value and cost are related and have to be considered in CQI.
- The Patient Protection and Affordable Care Act of 2010 (ACA) is legislation that is primarily focused on reimbursement; however, it does include some provisions on quality improvement, recognizing that focusing solely on cost will limit our ability to reach improved care and health.

- The National Quality Strategy (NQS) is a significant national initiative assisting in developing and maintaining quality care within the healthcare delivery system.
- Every nurse needs to be a leader and assume an active role in CQI.

Critical Thinking and Clinical Reasoning and Judgment: Questions and Learning Activities

1. Select one of the *Quality Chasm* reports described in this chapter. Go to the author's website (https://www.nationalacademies.org/hmd/Reports.aspx) and find the report. Read the executive summary, and then in your own words describe why the report is important to healthcare delivery and to nursing.
2. Consider the following questions about the ACA: (1) Why does the ACA not establish universal health coverage? (2) Why would one describe the ACA as mostly focused on reimbursement of care? (3) Review the examples of quality improvement provisions in this chapter and in Appendix A. Select one and identify why the provision relates to nursing care.
3. Review this chapter's discussion of the NQS, and visit the AHRQ's website to further research the NQS. How is the NQS directly related to nursing care and the nursing profession? Identify the NQS elements that are based on important CQI elements discussed in this chapter. Discuss your views with your student team.
4. Why do you need to be actively engaged in CQI as a student and then as a practicing nurse?

Connect to Current Information

- National Academy of Sciences/Health and Medicine Division
  https://www.nationalacademies.org/hmd/
- U.S. Department of Health and Human Services
  http://www.hhs.gov
- Agency for Healthcare Research and Quality
  http://www.ahrq.gov
- Healthy People 2020
  http://www.healthypeople.gov
- National Healthcare Quality and Disparities Reports (current annual reports)
  http://nhqrnet.ahrq.gov/inhqrdr/
- National Quality Strategy
  http://www.ahrq.gov/workingforquality/
- World Health Organization
  http://www.who.int/en/
- National Quality Forum
  http://www.qualityforum.org/Home.aspx

EBP, EBM, and Quality Improvement: Exemplar

Ricciardi, R., Moy, E., & Wilson, N. (2016). Finding the true north. Lessons from the National Healthcare Quality and Disparities Report. *Journal of Nursing Care Quality, 31*(1), 9–12.

This article offers a commentary about the *National Healthcare Quality and Disparities Report* (*QDR*) and its impact on quality care.

Questions to Consider

1. How does the article describe the *QDR* and its relevance?
2. Why is the NQS included in the discussion?
3. What example is described to support the impact that nurses can have on quality care?

Evolving Case Study

Your hospital has recently revised its CQI vision and aims based on work done in the *Quality Chasm* series and the NQS recommendations. As nurse manager for an emergency department (ED), you need to take this information and make it "real" for staff in the ED. The medical director and you will present this information to the staff, but you need to figure out how it applies to daily work and engage staff. You both agree that the staff will not appreciate the "words" on the paper unless you can attach their meaning to their work in the ED.

Case Questions

1. What information would you use as your base about the vision and the aims?
2. How would you then apply this information to the ED and the work done by staff?
3. You suspect you will be asked how the ACA impacts this approach. What information should you prepare on this topic?

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