Chapter 2

Conceptualization and Definitions of Quality

By Stephen R. Grossbart, PhD and Jaya Agrawal, MA, MHSA

Executive Summary

For far too long, the health care industry approached quality with an inconsistent definition and was hampered by a lack of consensus around assessment methodologies. In two path breaking reports issued between 1999 and 2001, the Institute of Medicine (IOM) presented a new conceptualization that began to reframe the industry’s understanding of both quality and safety in health care.

The science of health care improvement had advanced dramatically through the work of pioneers such as Avedis Donabedian and health care providers who championed systematic use of evidence-based medicine. This work helped lay the groundwork for an emerging body of consensus measures based on evidence that provided important tools for assessing the care delivered by health care providers. However, it was not until after the publication of the IOM reports that a paradigm shift began to emerge, one that provided new frameworks for assessing quality and safety and for initiating the overdue transformation of a care delivery system that still fails to provide safe and effective care.

Learning Objectives

1. Understand quality as defined in Crossing the Quality Chasm.
2. Understand the interrelationship between quality and patient safety and how this relationship has evolved since the publication of To Err Is Human.
3. Describe the Donabedian Quality Triad and its relationship to the practice of evidence-based medicine, quality improvement, and cultural transformation in health care settings.

Key Words: Donabedian Quality Triad, National Quality Forum, Institute for Medicine Reports, Institute for Health Care Improvement, Affordable Care Act, Value-Based Purchasing, Evidence-Based Medicine
Introduction

In September 1999, the Institute of Medicine (IOM) released To Err Is Human: Building a Safer Health System. Attributing 44,000-98,000 needless deaths in U.S. hospitals to medical errors, this groundbreaking report challenged health care providers by calling for a 50 percent reduction in errors by 2004. Although the report was preceded by a series of studies that raised concerns about the safety of patients in our health care system, it alone captured the broad attention of the American people and the health care industry. Within two weeks of publication, congressional hearings were initiated and the President called for studies to determine how the report’s recommendations could be implemented.

The report was not greeted warmly by the health care provider community; one editorial response described the work as “...hot and shrill. It shouts about death and disability in U.S. hospitals.” Less emotionally, in the pages of the New England Journal of Medicine, Troyen A. Brennan disputed the meaning of the word “error,” arguing that the actual number of patients needlessly harmed or maimed by health care providers was much lower. In a study of physician attitudes, Robert J. Blendon et al. reported survey results indicating that, although 35 percent of physicians had personally experienced a medical error during their own care or care of a family member, “only 5 percent of physicians...identified medical errors as one of the most serious problems” in our hospitals. The majority of physicians believed that the IOM report grossly overestimated deaths due to errors and thought 5,000 per year to be a more reasonable estimate. The physicians perceived that other entities should be held accountable for the few errors that occurred and that more effective error reduction solutions should be aimed at “requiring hospitals to develop systems for preventing medical errors, e.g., information technology (55 percent) and increasing the number of nurses in hospitals (51 percent).”

The IOM publication led to an intense period of national performance measurement development (e.g., The Joint Commission, the Center for Medicare & Medicaid Services) and their subsequent endorsement as national consensus measures by the National Quality Forum (NQF). Patient safety training programs were developed by the American Hospital Association (AHA), the National Patient Safety Foundation (NPSF), and the Institute for Healthcare Improvement (IHI). As early adopter hospitals worked to understand and address the problems outlined in To Err Is Human, a second IOM report, Crossing the Quality Chasm, laid out a blueprint for action.

Although the IOM reports led to profound policy recommendations during the late 20th and early 21st centuries, the health care provider community demonstrated only limited interest in tackling the transformation needed to provide safe and affordable care. Five years after the publication of To Err Is Human, Drew Altman et al. surveyed a sample of Americans and found that, “Unfortunately, despite 5 years of focused attention, people do not seem to feel safer. More than half (55 percent) of the respondents in our survey said that they are currently dissatisfied
with the quality of health care in this country"10 Two of the most visible champions of the patient safety movement, Lucien L. Leape, MD and Donald M. Berwick, MD, were prompted by such reports to reflect on the positive but largely unfulfilled goals of To Err Is Human.11

With over a decade behind us since To Err Is Human, and with the Department of Health and Human Services steadily implementing the Patient Protection and Affordable Care Act (ACA), the inability of the health care industry to transform itself has become even more evident. Although our awareness of error is far greater—today, no well-read health care provider challenges the IOM’s findings—errors have not declined significantly.

Christopher P. Landrigan et al. systematically analyzed records from a sample of hospitals to see whether the frequency and severity of medical errors had decreased in the post To Err Is Human decade. They found a nonsignificant one percent reduction, with “no significant change over time in the rate of harms identified by internal reviewers.” The authors theorized that this failure to improve was due to “the penetration of evidence-based safety practices being quite modest… only 1.5 percent of hospitals in the United States have implemented a comprehensive system of electronic medical records, and only 9.1 percent have even basic electronic record-keeping in place; only 17 percent have computerized provider order entry.”12

In November 2010, the Office of the Inspector General (OIG) issued Adverse Events in Hospitals: National Incidence among Medicare Beneficiaries, a scathing indictment of the industry that reported 13.5 percent of “hospitalized Medicare beneficiaries experienced adverse events during their hospital stays.” An astounding 15,000 deaths a month were attributed to these events. At least 44 percent of the reviewed events were preventable and such failures are estimated to result in $4.4 billion in waste annually.13

Despite good intentions, there is overwhelming evidence that U.S. health care quality is substandard, patient safety is lacking, the definition of quality remains ambiguous, and the cultural barriers to developing high-reliability systems often seem insurmountable. Even at the most elementary level, health care providers appear to be unwilling to reduce health care-associated infections by simply washing their hands, removing their ties, dressing naked below the elbow, and getting rid of their lab coats.14 Most surgical teams refuse to use simple yet effective checklists or to adhere to evidence-based standards for eliminating preventable perioperative complications15,16

A clear indication that the industry has not consistently embraced the need for cultural change is evident in recently released data on preventable harm in our hospitals. CMS reported that, among Medicare fee-for-service patients, nearly 1 in every 10,000 who underwent surgery in the United States had an object accidentally left in his or her body after surgery (foreign object retained after surgery).17 Yet, high-reliability hospitals that use checklists and have a standardized
process to account for sponges and other objects can prevent virtually 100 percent of these events. Apparently, such cultural resistance in the face of common sense and a significant body of evidence keeps health care providers from achieving breakthrough performance levels.

As we reflect upon the “patient safety movement” and the substantial quality improvement work that has occurred, one thing is striking. Hospitals and providers have not culturally accepted the existence of a “quality chasm,” and thus we routinely fail to provide safe evidence-based care that is centered on healing the patient.

One important concept for quality and safety leaders can be found in Thomas S. Kuhn’s *The Structure of Scientific Revolutions*. Though not a common reference in the bibliographies of most health services research, Kuhn’s concept of a “paradigm shift” has seeped into the popular culture since it was first published in 1962. Kuhn emphasizes that, rather than being incorporated in a continuous and linear process, scientific knowledge is marked by episodic scientific revolutions that disrupt the understanding of the scientific community. Typically met by resistance and skepticism, such revolutions ultimately have the capacity to shift the scientific community’s paradigm of understanding.

*To Err Is Human* may be to health care delivery what Nicolaus Copernicus’s *Commentariolus* was to astronomy. Copernicus’s work—questioned, challenged, and dismissed when it appeared—ultimately led to Galileo Galilei’s work and the collapse of the existing Ptolemaic system. The lukewarm reception of the health care industry to quality and patient safety improvement is strikingly similar. Through our inaction, the health care industry demonstrates a lack of understanding and acceptance of the findings contained in *To Err Is Human*. Yet its influence is episodic, and we appear to be witnessing a paradigm shift despite a majority of “Ptolemaics” in our industry who are unwilling to acknowledge that anything is wrong with the existing health care delivery system.

The culture of patient safety first articulated in *To Err Is Human* is beginning to emerge, and, within this new paradigm, we are better able to conceptualize and define quality.

**Definitions of Quality Improvement**

**Donabedian Triad: The old paradigm**

Writing in the 1960s, Avedis Donabedian pioneered a framework for understanding and evaluating quality improvement work in health care that continues to resonate with many clinicians today. His body of work helped lay the foundation for recognizing that health care quality is measurable and that quality assessment depends on looking at three key components known as the Donabedian Quality Triad.
The Triad rests on the assumption that health care quality is the product of two factors, science and technology, and the practical application of these in the health care industry. The Triad explores quality as a balance of the three dimensions: 1) structure (the tools and resources available to providers and their physical and organizational settings), 2) process (the normative behaviors of providers and the interactions between them and their patients), and 3) outcome (“changes in a patient’s current and future health status”). As originally presented by Donabedian, the Triad appeared in a linear relationship as follows: Structure → Process → Outcome.

Because Donabedian theorized that all the elements are linked, a more appropriate schematic follows:

Insight into just one component of the Triad is insufficient to measure and evaluate quality. As summary views of quality, outcome measures were the most prevalent indicators of success. However, recent research has shown that process metrics provide increased detail and are more sensitive to incremental changes in performance. Beginning in the late 1980s, an emphasis on assessing all elements in the Triad has helped create the conditions for a focus on process redesign. Outcomes alone are recognized as lying “too far down the stream of production of care to be efficient detectors of quality problems.” In the 1980s and 1990s, the industry attempted to move toward measuring structure and processes in addition to outcomes, thus avoiding what Berwick described as the “tyranny of outcomes.”

Donabedian emphasizes the critical role of health care structure, a prerequisite for process and outcome. Structure includes physical infrastructure (e.g., facilities, equipment, supplies) and the structure of organizational capability (e.g., provider qualifications). Increasingly, it is believed that structure should include organizational operational capability since “leadership, human capital, information management systems and group dynamics…are essential structural elements of quality improvement in a health care organization and serve as primary catalysts for process change.”
Process includes all activities that take place between direct and indirect organizational health care providers and patients. These are categorized into technical and interpersonal processes. Technical processes deal with clinical activities focused primarily on individual health and reduction of associated clinical risk. In contrast, interpersonal processes focus on the social and psychological interactions between individual health providers and the patient. Donabedian emphasized the technical skill of providers, and, therefore, process is the primary focus of quality improvement initiatives addressing intra- and inter-profession activities and closely examining the culture of collaboration and cooperation between them.26

Describing the outcome leg of the Triad, Donabedian wrote that, “Outcome means a change in a client’s current and future health status that can be attributed to antecedent health care.”24 The Triad elements lead to the identification of four broad clusters of outcomes that can be identified, measured, and categorized as: 1) behavioral 2) experiential 3) clinical, and 4) financial. This area contains the effect (outcomes) of processes and available structure elements—for example, the impact of the change initiative on mortality, hospital readmissions, or patient experience.27

While the Triad provided a basic framework for understanding quality improvement, it overlooks certain areas, such as cost and efficiency.28 In addition, Donabedian’s work fails to incorporate culture—particularly the culture of patient safety called for by the IOM—and places undue emphasis on technical skill without considering systems of care and the culture of high-reliability teams.

Evidence-Based Care and the Role of Guidelines

When Donabedian described process in the 1960s, his focus was on the “appropriateness, completeness, and redundancy of information obtained through clinical history, physical examination and diagnostic tests; justification of diagnosis and therapy; technical competence in the performance of diagnostic and therapeutic procedures, including surgery; evidence of preventive management in health and illness; coordination and continuity of care; [and] the acceptability of care to the recipient.”23 Since that time, the terminology has shifted to “adherence to evidence-based care and clinical practice guidelines.”29

The number of clinical guidelines grew rapidly in the 1990s. Research dating back to the early 1970s, much of it led by John E. Wennberg, MD at Dartmouth University, demonstrated unexplained variation in health care.30 The industry’s failure to standardize its processes was seen as resulting in both under- and overutilization. Although guidelines, in theory, should have helped clinicians to standardize care and reduce such variation, it became increasingly clear that “the accelerated pace of development...led to an abundance of guidelines created by different organizations with different methods and different objectives.”31 Moreover, guidelines did not consistently adhere to the evidence, or they became outdated long before they were widely adopted.3, 32, 33
In the 1990s, the Veterans Administration (VA) defined clinical practice guidelines as “recommendations for the performance or exclusion of specific procedures or services derived through a rigorous methodological approach that includes the following:

- Determination of appropriate criteria, such as effectiveness, efficacy, population benefit, or patient satisfaction; and
- Literature review to determine the strength of evidence (based in part on study design) in relation to these criteria.”

Although the VA’s Clinical Practice Guideline Primer stressed that guidelines must be evidence-based, providers in the 1990s were slow to adopt the evidence. One of the most striking examples of this was prescribing aspirin for heart attack patients. In 1988, clear evidence emerged from clinical trials that heart attack victims without contraindications benefited from timely administration of aspirin. Three years following the release of this evidence, researchers reported that aspirin use following acute myocardial infarction (AMI) had increased from 39 to 72 percent for patients in 106 North American hospitals.

In 2002, The Joint Commission began collecting data on aspirin use upon arrival at the hospital for AMI patients. CMS began reporting this information publicly in 2004, ultimately linking the data to payment. With CMS’s first release of data, the national average rate of administering aspirin within 24 hours of admission for AMI patients was a respectable 94 percent; however, variation remained high. Nearly 5 percent of the 2,817 hospitals treating more than ten AMI patients in the first two quarters of 2004 administered aspirin to less than 80 percent of eligible patients. Fewer that 90 percent of eligible AMI patients received aspirin within 24 hours at over 20 percent of the nation’s hospitals, while nearly half of these hospitals administered aspirin within 24 hours to less than 95 percent of their eligible AMI patients.

After years of public reporting, these numbers have improved. In the 12-month period ending September 2010, all but 11 percent of the 2,665 hospitals treating more than ten patients administered aspirin to over 95 percent of their AMI patients, while only 4 percent of the nation’s hospitals administered aspirin to less than 90 percent of their eligible patients; less than 1 percent of hospitals administered aspirin to less than 80 percent of their patients.

Historically, providers have been slow to accept evidence, providing face validity to the research of Everett M. Rodgers, who argued that the adoption of innovation follows a normal distribution. In his work, Diffusion of Innovation, Rodgers demonstrated that it took 15 years for Iowa farmers to adopt the use of superior hybrid seed corn in the 1920s and 1930s. The timeline for a nearly full implementation of the use aspirin upon arrival for AMI patients (1988 to 2010) is only slightly behind the pace of the Iowa farmers.
The industry’s slow rate of adopting evidence-based guidelines and the growing demand for valid process measures to identify compliance with the evidence has significantly transformed health care. The IOM’s *Crossing the Quality Chasm Report* specifically pointed out that “…in the current health care system, scientific knowledge about best care is not applied systematically or expeditiously to clinical practice. An average of about 17 years is required for new knowledge generated by randomized control trials to be incorporated into practice.”\(^\text{12}\)

The *Chasm Report*’s findings dovetailed well with work under way elsewhere. In 1999, the NQF was created as a not-for-profit membership organization. This public-private partnership includes national, state, regional, and local groups representing consumers, public and private purchasers, employers, health care professionals, provider organizations, health plans, accrediting bodies, labor unions, supporting industries, and organizations involved in health care research or quality improvement. Through its efforts to build consensus across various stakeholder groups, the NQF created a common and relatively non-controversial approach to measuring health care quality. Increasingly, the NQF is recognized as a critical force for reviewing and endorsing performance measures for public accountability. Several major organizations, including The Joint Commission, CMS, and the National Committee for Quality Assurance (NCQA), have aligned with NQF standards. Thus, the NQF has brought a level of stability to performance measurement.

Another force driving the industry toward adoption of evidence-based guidelines is the Institute for Healthcare Improvement (IHI). Founded in 1991, the IHI focused attention on improving the safety of hospital care with the launch of its *100,000 Lives Campaign* on December 14, 2004. With over 3,000 hospitals participating, this voluntary campaign became a *de facto* national standard. Regardless of their participation in the campaign, hospitals faced significant legal incentives to adopt the 6 recommended evidence-based interventions proposed by the IHI to reduce avoidable inpatient deaths.\(^\text{39}\) The *100,000 Lives Campaign* was followed by the IHI’s *5 Million Lives Campaign*, with a focus on additional interventions aimed at reducing patient harm.

While the NQF developed consensus measures to help assess quality, the IHI supplied tools and methods to help providers implement evidence-based practices to improve care. At the same time, both organizations helped to accelerate the regulatory changes first proposed in the IOM’s *Chasm Report* and recently embedded in the Affordable Care Act. The approval of consensus measures by the NQF ensured that CMS could implement regulatory changes that would enable it to increase transparency with respect to quality performance and to transition its remuneration structure to pay for quality rather than procedures. We now know that all health care providers will be included in CMS’s “pay for reporting” requirements and, with the launch of value-based purchasing initiatives, NQF-endorsed measures will be used by CMS as well as other regulatory agencies and many commercial payers to enforce accountability.\(^\text{40}\)
The IHI provides a learning laboratory for a small but energetic cohort of providers who have demonstrated that care can be dramatically improved through systematic interventions. In part because of the IHI’s focus, early adopters in the provider community were able to reduce harm near to zero for patients receiving central lines or being placed on ventilators.\textsuperscript{41} Thus, the IHI helped eliminate the industry’s ability to challenge the direction of CMS by making the pursuit of perfection a realistic and attainable goal.

In turn, CMS rapidly incorporated IHI’s recent work into its reform and payment strategies. Critics are increasingly on the defensive in challenging the findings of the IOM reports and policies built upon the reports’ foundations.

The industry’s unwillingness to adhere to evidence-based practice has further opened the door for a regulatory environment that intends to enforce adherence, whether or not providers agree. Once The Joint Commission began to collect process measures in 2002, CMS followed (in 2004) and quickly linked payment to reporting. The ACA adds significant regulatory oversight with respect to guideline adherence. The value-based purchasing rule issued by CMS on May 6, 2011, includes 12 process measures consistent with evidence-based guidelines.\textsuperscript{42} Hospitals that fail to perform at acceptable levels will experience a loss of Medicare reimbursement.

The list of process measures is likely to grow. The proposed CMS Inpatient Prospective Payment System rule (2012) includes a total of 35 evidence-based clinical process measures, while another 20 process measures are included in the current Outpatient Prospective Payment System rule. These measures will likely be added in the future to value-based purchasing rules.\textsuperscript{43, 44} Use of evidence-based guidelines are now, and will increasingly become, a requirement for payment by both public and private payers.

\textbf{Crossing the Quality Chasm Report}

Moving beyond simple outcome measurement, Donabedian provided a framework for assessing quality by focusing on process measures and, to a lesser extent, structural measures, thus helping to create a common understanding that quality is measurable. Evidence-based medicine and its incorporation into clinical practice guidelines laid the groundwork for developing clearly defined performance measures and a more meaningful standard for identifying high-quality providers.

Ultimately, it was the IOM’s \textit{Chasm Report} that provided a new framework for assessing and improving quality. With its publication, the health care industry finally had a sufficiently broad and comprehensive definition of quality that moved us beyond the Triad. Appearing in March 2001, the report was a strategy for reinventing the entire health care delivery system. After boldly stating that, as currently organized, the United States health care delivery system could not provide high-quality care, the report created a blueprint for its restructuring. The report was embraced rapidly by health policy leaders—many aspects have been incorporated into public
policy—and it is slowly being adopted by health care providers as they develop their quality improvement strategies.

Immediately, the *Chasm Report* began to change the conversation among health policy makers—CMS, employers, business coalitions, and increasingly commercial payers. Publication of the report was truly a transformative event; nine years later, much of the report was embedded in the PPACA signed into law by President Barack Obama on March 23, 2010. In contrast, hospital staff and health care providers were often the last to read and comprehend the *Chasm Report* and have been slow to adopt its recommendations for developing quality improvement strategies.

One cannot begin to conceptualize and define health care quality without understanding the *Chasm Report*. The report laid out 6 aims for improvement of health care that we quote at length:

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

In effect, quality is determined by the ability to accomplish the six aims of the *Chasm Report*. The report also provided a framework for achieving the report’s aims by focusing on four specific levels of improvement in the following areas:

A) The experience of patients and communities.

B) Improving and redesigning microsystems of care—the small units where value for a patient or consumer is actually created. This calls for a fundamental shift from old models of care with the articulation of 10 simple rules:

1. Care based on continuous healing relationships
2. Customization based on patient needs and values
3. The patient as the source of control
4. Shared knowledge and free flow of information
5. Evidence-based decision making
6. Safety as a system property
7. The need for transparency
8. Anticipation of needs
9. Continuous decrease in waste
10. Cooperation among clinicians

C) Redesign of health organizations, with a focus on: (1) “robust and persistent systems for finding best practices and assuring that the best-known clinical models...become organizational standards”; (2) information technology; (3) investment in and development of the health care workforce; (4) team-based care; (5) improved care coordination; and (6) measurement systems that accurately capture performance around all six IOM aims.

D) Changes to the external health care environment, including but not limited to regulatory, accreditation, litigation, and policy changes.\textsuperscript{12, 45}

The IOM aims contained in the \textit{Chasm Report} do not neatly fit into Donabedian’s structure-process-outcome framework. Certainly, effective and timely care is aligned with process, while safe and patient-centered care can be considered outcomes. Efficiency was not tightly tied to the Donabedian Quality Triad and equity did not play a prominent role. The major divergence, explicit in \textit{Chasm Report}, is a recognition that a “higher level of quality cannot be achieved by further stressing current system of care. The current care system cannot do the job. Trying harder will not work. Changing systems of care will.”\textsuperscript{12} Moreover, changing systems of care requires new methods and approaches. The \textit{Chasm Report} did not call for tweaking structure; rather, it called for a reinvention of the way care is delivered, thus providing a new paradigm for understanding quality and safety.

The \textit{Chasm Report} and \textit{To Err Is Human} were direct assaults on the health care delivery system that fundamentally changed the way innovative health providers approached quality improvement. In the aftermath of these publications, quality improvement followed two complementary but different paths. As already noted, process measurement and adoption of evidence-based practices matured rapidly due, in part, to regulatory pressure. Yet simple measurement was not sufficient to achieve the IOM aims. Improvement in process measures \textit{did not} transform health care providers into high-reliability organizations.

The most significant change in health care in recent years is only partly due to more aggressive adoption of evidence-based medicine and the transparency associated with public reporting of provider performance. High-reliability health care providers are differentiating themselves by recognizing that cultural transformation is required to change our “current care system [that] cannot do the job.”\textsuperscript{12}
The need for profound cultural transformation was implicit in both IOM reports. In his keynote address at the 12th Annual IHI National Forum on Quality Improvement in Healthcare, Berwick captured this challenge by calling for “deep change—change in what we do and change in what we think.”

Since Berwick spoke in 2000, a significant driver of this change has been story telling. Story telling gained popularity through the IHI’s 5 Million Lives Campaign, which included a plank for “Getting the Board on Board.” The campaign called for hospital boards of trustees to get data and hear stories. Boards, the IHI argued, should “select and review progress toward safer care as the first agenda item at every board meeting, grounded in transparency, and putting a ‘human face’ on harm data.”

Telling stories is important because stories help hospitals and providers to construct a safety knowledge. Through the social interaction of story telling, caregivers can make sense of safety events. When appropriately used, stories become a form of organizational learning that can move the culture of an institution to a level of higher reliability.

While Donabedian moved the industry away from measuring rare outcomes (e.g., mortality) and emphasized process, the changes emerging in the post-Chasm Report decade are harking back to “outcomes.” Rather than as a systematic way to measure quality, the focus is increasingly on how organizations culturally respond to harm events. In this new model, harm rates per 1,000 patients are a less important measure than how an organization responds to failures and redesigns care, one patient at a time.

**Conclusion**

The conceptualization and definition of quality is undergoing a dramatic change. Since Donabedian first provided a framework for assessing quality, our conceptualization and definition of quality has matured. The Chasm Report, coming on the heels of To Err Is Human, provides a conceptualization that has already been embraced by many within the industry, in particular policy makers. In order for health care providers to influence the direction of health care quality, they too must comprehend and embrace the Chasm Report’s conceptualization of quality and continue to adopt tools and approaches to implement change as outlined in the report and as embodied in the implementation of health care reform.

**Study and Discussion Questions**

1. What are the key components of the definition of quality contained in Crossing the Quality Chasm?

2. How did the publication of To Err Is Human change the industry’s understanding of patient safety and harm?

Suggested Reading and Web Sites


Institute for Healthcare Improvement. (http://www.ihi.org)

Agency for Healthcare Research and Quality (http://www.ahrq.gov)

The Joint Commission (http://www.jointcommission.org)

The National Quality Forum (http://www.qualityforum.org/Home.aspx)

References


