

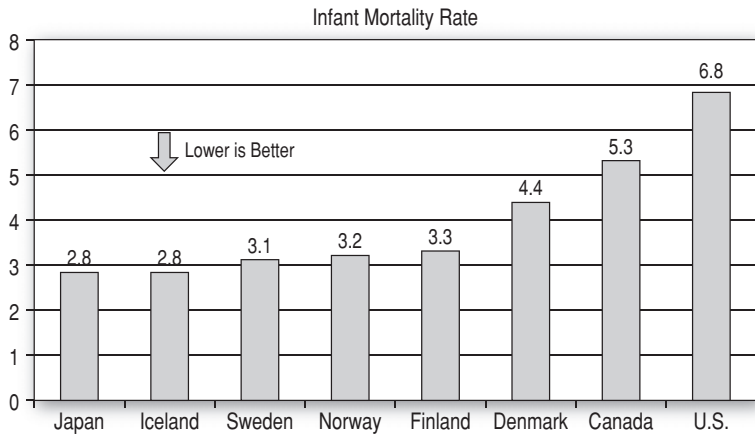
Why Is Performance Improvement the “Big New Thing”?

“Change is not necessary. Survival is not mandatory.”

—W. Edwards Deming

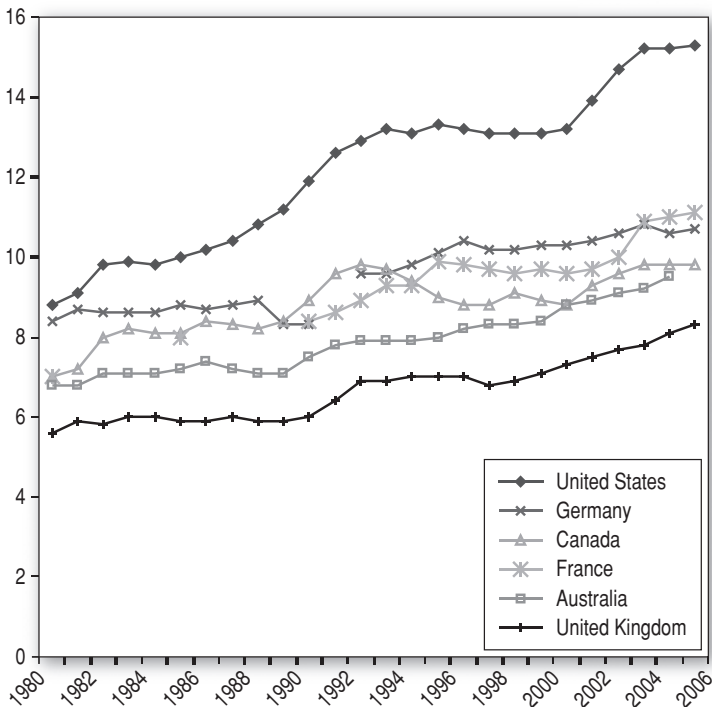
Americans are annoyed. The United States spends the greatest amount for health care of any developed country, but quality of health care measured by statistics like infant mortality rate lags far behind other countries. Consider, for example, the following statistics from the 2008 Commonwealth Fund’s National Scorecard on US Health System Performance:¹

- The US infant mortality rate at 6.8 per 1,000 live births exceeds that of Japan, Iceland, Sweden, Norway, Finland, Denmark, and Canada (**Figure 1-1**).
- Healthcare costs as a percent of GDP are higher in the US than in any other industrialized country (**Figure 1-2**).
- People who experience problems affording medical bills increased from 34% in 2005 to 41% in 2007 according to the Commonwealth Fund Biennial Health Insurance Survey (**Figure 1-3**).
- Recently, a Medicare beneficiary complained to a Florida health plan that an oncologist was demanding payment from the patient for the



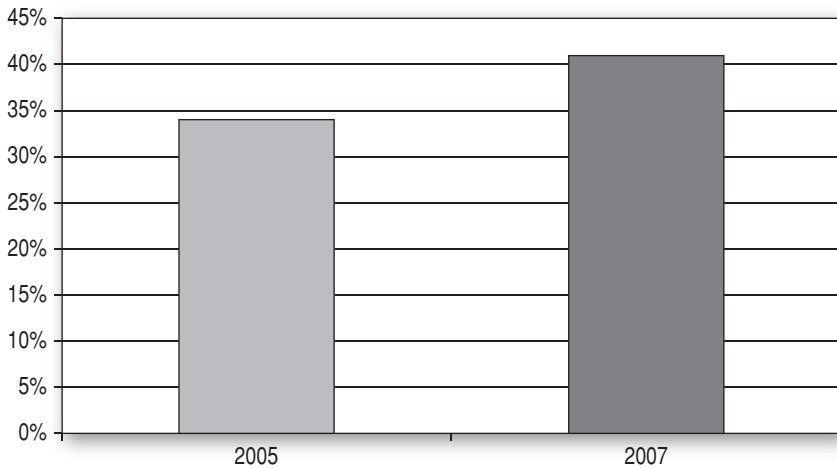
Data from: McDorman M, Mathews T, Recent Trends in Infant Mortality in the United States, NCHS Data Brief, No. 9, October, 2008, accessed at <http://www.cdc.gov/nchs/data/databriefs/db09.pdf>

FIGURE 1-1 Infant mortality rate comparison 2004



Data from: Organization for Economic Cooperation and Development, 2007 data

FIGURE 1-2 Comparison of healthcare costs as a percent of GDP



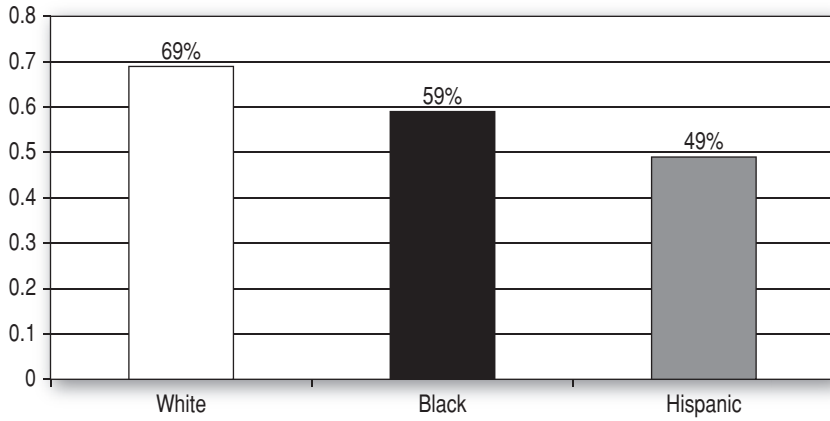
Data from: Doty M, Collins S, Rustgi S, Kriss J, *Seeing Red: The Growing Burden of Medical Bills and Debt Faced by U.S. Families*, The Commonwealth Fund Issue Brief, 42: August 20, 2008, accessed at <http://www.commonwealthfund.org/Content/Publications/Issue-Briefs/2008/Aug/Seeing-Red--The-Growing-Burden-of-Medical-Bills-and-Debt-Faced-by-U-S--Families.aspx>

FIGURE 1-3 Percent of adults (ages 19–64) with any medical bill problem or outstanding debt

portion of a chemotherapy regimen not covered by Medicare. The oncologist refused to initiate therapy until this “copayment” (the part that is not covered by Medicare) was remitted. Some of these therapeutic medications can have a copayment of several thousand dollars. The elderly man reported that he was in the process of remortgaging his house so that he could afford the treatment, saying “If I lose the house, I can live on the street. That’s better than losing my life.”²

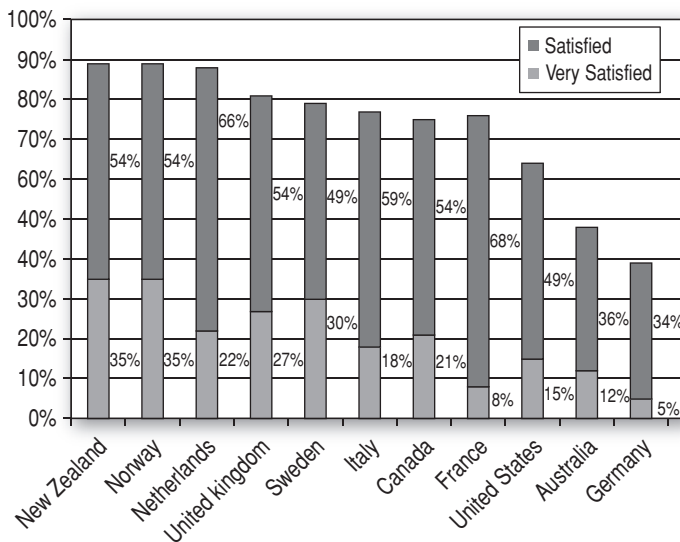
- Despite increased spending in Medicare and Medicaid, ethnic disparities persist in a number of basic healthcare measures, such as access to a primary care physician (**Figure 1-4**).
- In addition to the high cost and variable quality of the US healthcare system, only 64% of US physicians are satisfied or very satisfied with the system in which they work, among the lower percentages in the industrialized comparison group (**Figure 1-5**).

These issues dominate the US healthcare market in the early 21st century. Although a large proportion of the population is covered by health insurance, coverage is spotty, incomplete, and the tens of millions of people



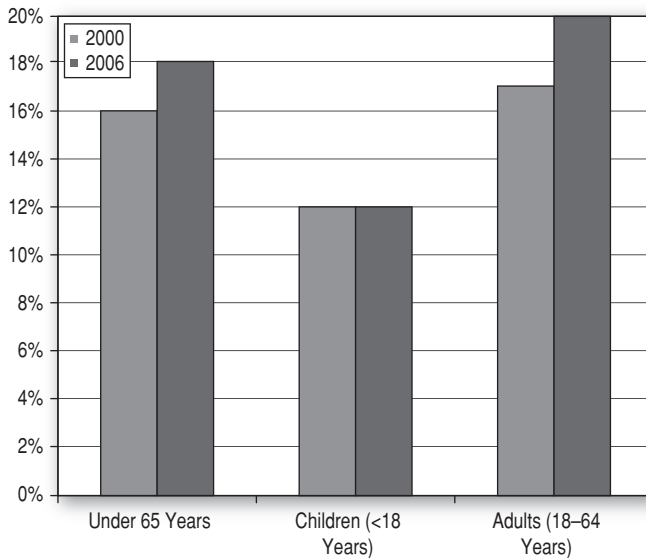
Data from: Medical Expenditure Panel Survey, 2011

FIGURE 1-4 Variation in access to primary care physician by ethnic group 2005



Data from: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

FIGURE 1-5 Percent of primary care physicians satisfied or very satisfied with medical practice 2009



Data from: Analysis of Current Population Survey, March 1995–2007

FIGURE 1-6 Percent uninsured U.S. population by age group in 2000 and 2006

who are not covered are at risk of a catastrophic event ruining their lives (**Figure 1-6**). After a generation of cost cutting showed little effect on cost or quality, healthcare delivery systems in the US and other industrialized countries around the world have begun to focus on the tenets of performance improvement. The expected benefits of this new direction subsume three areas: 1) quality of care, 2) patient safety, and 3) cost.

BACKGROUND

The 1970s and 1980s saw the start of the wave of managed care, which ostensibly was to help ensure appropriate care in appropriate settings with appropriate follow up. Unfortunately, the first three decades of managed care consisted mainly of “managed cost,” i.e., finding ways of decreasing the utilization of health services mainly by placing barriers in the way of providers (doctors, nurses, and other practitioners) being able to request and obtain care for patients.³ Practices like prior authorization, concurrent review, and retroactive denials using rules that sometimes bordered on the

arcane combined to thwart access to care by increasing the difficulty faced by practitioners and their patients in assuring that rendered care would be paid for by the insurance companies. In the 1990s a new wrinkle arose, consumer driven health care (CDHC). CDHC plans do not provide “first dollar coverage,” i.e., the first amounts incurred for services are paid by the patient, rather than the insurer. These plans have two key characteristics:

- A high deductible health insurance policy, often with deductibles of \$2,500–\$5,000, that must be paid by the patient before the insurer starts paying.
- A savings account that the patient uses to pay the deductible. The savings account can be filled by the employer or the patient may be required to pay into the account through payroll deductions. In some cases, amounts in these accounts can be carried forward into the next year, without taxation, creating incentives for patients to limit care to only those medical services that are most likely to be valuable.

Unfortunately, high deductible plans may discourage individuals from getting preventive screenings like mammograms, Pap smears, and colorectal screening, in an effort to avoid depleting the savings account. Equally unfortunate are the consequences of ignoring these important screenings – later diagnosis of treatable conditions leading to more expensive treatment and less favorable outcomes of otherwise curable diseases. In short, people who are at financial risk for healthcare services simply do not see the value in many preventive care services.

Additionally, because of the gross disparities in care, as well as the financial inequities in the system, public sentiment has increasingly turned to advocating a complete overhaul of the healthcare delivery system. In a 2009 survey by the Commonwealth Fund, 15% of US physicians stated that the system needs to be completely rebuilt, and 67% opined that the system needs fundamental change.⁴ As of this writing, the parameters of the new healthcare industry plan are being hotly debated in both Congressional and public forums, but it is clear that some type of change is in the offing.

Less well known, however, is the change in reimbursement policies by the Centers for Medicare and Medicaid Services (CMS), which is slowly reshaping the system even more than the reforms being reviewed in the political arena. CMS has begun using quality scores to determine levels of payment for health plans. These “Star Ratings” are presently based on three

Table 1-1 Components of the health plan Star Ratings report

	Stands for:	Explanation
HEDIS	Health Effectiveness Data Information Set	<ul style="list-style-type: none"> • Clinical and administrative measures for health plans, hospitals, and ambulatory settings • Operational definitions based on ICD codes • Derived from health plan transaction data and chart reviews
CAHPS	Consumer Assessment of Health Performance Survey	<ul style="list-style-type: none"> • Survey of consumers of health care • Versions for health plans, hospitals, ambulatory settings (e.g., physician offices) • CMS contractors conduct surveys of health plan members • Determines satisfaction with health plan member services, primary care physician services, specialist services
HOS	Health Outcomes Survey	<ul style="list-style-type: none"> • Tracks a cohort of health plan members over two years • Initial “paper” survey completed by health plan member, followed up with telephone survey two years later to determine difference in health status • Scores derived from consumer perception of health status improvement

Data from: Kaiser Family Foundation, What’s In the Stars? Quality Ratings of Medicare Advantage Plans 2010, Issue Brief, December, 2009, accessed at <http://www.kff.org/medicare/upload/8025.pdf>

components: HEDIS scores, CAHPS scores, and HOS scores (**Table 1-1**), as well as Medicare administrative (primarily complaint) data. Performance in these three measurement systems is combined according to a statistical formula, and the resulting score is compared with other health plans to rank the plans according to their aggregate performance on the measures. The rankings are used to determine rates for payments of the health plans that are then reflected in member benefits (lower payments lead to fewer included benefits), provider payments (particularly incentives), and in some cases, health plan viability.

In this way, CMS intends to incentivize health plans to push the quality agenda to its providers and members. Although this approach is unproven to date, aligning incentives to desired behaviors is expected to produce

desired results; however, the “law of unintended consequences” will likely surface other effects, as well. For example, if health plans withdraw from Medicare because of the financial changes, then a smaller number of health plans will assume responsibility for larger numbers of members, creating “mega-plans” that may be more difficult to control through negotiations and incentives. As this new system of quality incentives unfolds, these unintended outcomes must be continually reviewed. As the incentive program is promulgated through Medicare, it will gradually morph into similar programs in state Medicaid plans, as well as many commercial plans.

IMPROVING THE QUALITY OF CARE

The healthcare industry has responded to this renewed emphasis on quality of care in a number of ways specific to the sector. Providers (i.e., physicians, nurses, therapists, and others who deliver medical care to patients) have adopted approaches from industrial engineering to improve the effectiveness and efficiency of care. Health plans have initiated efforts to prod members and providers into adhering to guidelines based on evidence from medical literature and clinical experts. Patients and providers alike find themselves in an ideal position if they are motivated to encourage and adopt preventive care practices, since the most highly subsidized metrics are those that encourage preventive care and wellness. The fact that the entire healthcare system is refocusing on quality does not necessarily ensure success, however. Incentives for each of the many participants in the system (**Figure 1-7**) overlap, but do not align. For example, consider these conflicts:

- **Patients** want unfettered access to the most advanced and safest care possible for themselves and their families. If a provider wants to do a test or implement a treatment, then it should be allowed, regardless of the evidence of efficacy. The advent of Internet sites on health care and direct-to-consumer advertising by pharmaceutical companies have raised public awareness of diagnostic and therapeutic modalities, but do not always include information on appropriateness. Most practitioners have had the experience of patients bringing printouts from the Internet on a clinical condition or treatment and demanding tests or medications that may not be appropriate. The patient’s position is understandable, as no one would want to suffer deleterious health

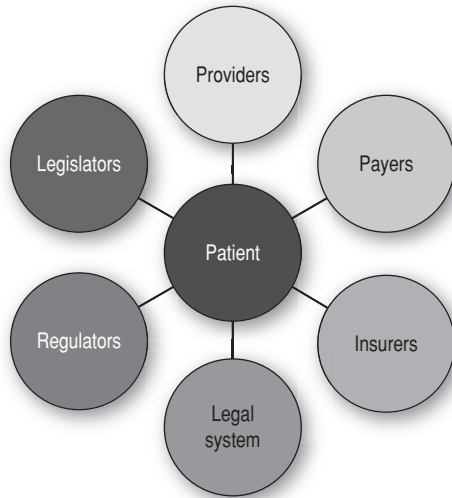


FIGURE 1-7 The health care accountability circle

consequences because of lack of access to care or failure of a provider to consider all possible alternatives. This shrinkage of the medical information gap between providers and patients has increased the demand for services, sometimes inappropriately.

- Physicians** want to do their best to ensure patients have the best and most advanced care, but many also are driven by the need to run a business, as well as to generate enough of a profit to make it worth eight years of education and three or more years of postgraduate residency and fellowship training. Theories of physician pricing behavior suggest that physicians maintain target incomes based on a number of factors, including specialty and site of practice.⁵ Thus, pricing by physicians for many years was based on the amount of marginal revenue needed to meet that target. Now, however, the fees paid to physicians are mostly set by governmental or commercial insurers, and so the only factor in the revenue equation ($\text{Revenue} = \text{Volume} \times \text{Price}$) is the volume of services. Thus, for physicians to meet these targets, they must increase volume. On the other hand, physicians are trained as scientists who are motivated to apply science and technology to the care of patients, which has led to some of the extraordinary advances in the past 50 years. The motivation to use these techniques to improve care is compelling for physicians who

want to improve the lives of patients and practice the science of medicine. Physicians’ incentives are thus complex, but critical to the cost and quality of care.

- **Payers** may be lumped into three groups: 1) insurers, who serve as the intermediaries for payments; 2) employers, who offer health insurance to employees as a benefit; and 3) government entities that pay for the health care for the poor and the elderly, either directly or through insurance companies similar to the way employers use insurers as intermediaries. The cost of health care has increased dramatically in the past five decades, putting extraordinary financial pressure on payers and consuming more resources that could be devoted to a business’s core competency. For example, one of the factors that brought mighty General Motors to bankruptcy was the cost of health care for employees and retirees.⁶ Payers have become focused on containing healthcare costs, and that effort has translated into realigned incentives for employee wellness programs and limits on payments for care, i.e., cost containment programs enforced through insurers.

Only when incentives among all of these participants become aligned will the system finally achieve the value proposition – i.e., the highest possible quality at the lowest possible cost. Achieving this alignment is perhaps the greatest challenge of healthcare reform. Simply changing the payment system to reward outcomes will not be sufficient: indeed, providers must also adopt approaches that enhance care and reduce errors, and consumers must take an active interest in their health by employing preventive services and healthy lifestyles.

PATIENT SAFETY—A SPECIFIC QUALITY GOAL

Improving the quality of care is a rather general concept, but it translates into one important goal, that of patient safety. Healthcare providers for decades averred that healthcare services were safe, although not necessarily without risk. When the landmark book by the Institute of Medicine, *To Err Is Human: Building a Safer Health Care System*,⁷ estimated that 98,000 preventable deaths in the US occur annually due to medical errors, the reaction by healthcare providers followed the classic Kübler-Ross model,

starting with denial and finally ending with acceptance after several years of public debate. The actual number has become less important than the need to eliminate medical errors and preventable morbidity. Patient safety has become the new mantra of the industry, and a number of important initiatives have emanated from this guiding principle.

- **The Joint Commission (TJC)** has implemented a number of important programs for provider organizations, including:
 - **National Patient Safety Goals (NPSGs)**—a program started in 2002 to serve as a method for organizations to focus on patient safety. The Patient Safety Advisory Group, consisting of physicians, nurses, pharmacists, and other health professionals, reviews the medical literature each year to determine opportunities for improving patient safety and then translate those opportunities into specific measures that can direct initiatives for improvement.
 - **“Do not use” list**—recognizing the issue of misinterpretation of abbreviations in medication orders, TJC initiated the “do not use” list in 2005, which included such shortcuts as “cc” and “µg”. The goal of implementing this list is to eliminate a common source of error in medication ordering. Seventy professional organizations participated in a summit in 2004 to ratify the list and add it to TJC standards.
 - **Infection control**—TJC has partnered with a number of organizations, including the Society for Healthcare Epidemiology of America (SHEA, www.shea-online.org), to develop guidelines for reducing hospital acquired infections (HAIs). HAIs are a leading cause of morbidity and mortality in medical settings, and the infectious organisms have become increasingly resistant to available antimicrobials; thus, HAI prevention has become a primary strategy for providers. The *Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals*, available for free download on SHEA’s Web site, has become a seminal publication in these efforts.⁸
 - **Speak up**—TJC created this award-winning program to empower patients to become engaged in their care and to add another set of eyes to the care team. The program’s name is an acronym for:
 - **Speak up** if you have questions or concerns. If you still don’t understand, ask again. It’s your body and you have a right to know.

- **Pay attention to the care you get.** Always make sure you are getting the right treatments and medicines by the right healthcare professionals. Don't assume anything.
- **Educate yourself about your illness.** Learn about the medical tests you get and your treatment plan.
- **Ask a trusted family member or friend to be your advocate** (advisor or supporter).
- **Know what medicines you take and why you take them.** Medicine errors are the most common healthcare mistakes.
- **Use a hospital, clinic, surgery center, or other type of healthcare organization that has been carefully checked out.** For example, The Joint Commission visits hospitals to see if they are meeting The Joint Commission's quality standards.
- **Participate in all decisions about your treatment.** You are the center of the healthcare team.
- **Universal protocol**—starting in 2004, TJC began monitoring hospitals and ambulatory surgery facilities for implementation of the Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery. Created to address the continuing occurrence of wrong site, wrong procedure, and wrong person surgery, the Universal Protocol strengthened requirements from the 2003 NPSGs and required three steps in the preoperative period:
 - Preprocedure verification process to validate the patient's identity and procedure
 - Marking the procedure site to avoid operating on the wrong location
 - Performing a time-out before the procedure to revalidate the patient's information
- The **Agency for Healthcare Research and Quality (AHRQ)**, a division of the US Department of Health and Human Services, has become a treasure trove of patient safety information that is provided at no charge to the public. A few of these programs include:
 - **Online journals**—these journals provide the latest information on research into preventing errors and improving patient safety
 - **Patient Safety Network**—a Web site with articles and a newsletter to identify risks and provide tools for mitigation (<http://www.psnet.ahrq.gov/>)

- **Patient Safety Primers**—a Web site with several basic texts and articles on patient safety and other improvement topics (<http://www.psnet.ahrq.gov/primerHome.aspx>)
- **Morbidity and Mortality Rounds on the Web**—cases involving medical errors or “good catches” for demonstrating patient safety principles (<http://webmm.ahrq.gov/>)
- **Tips for consumers and patients**—a Web site with information for consumers that can be used by providers for producing hand-outs and other patient education resources (<http://www.ahrq.gov/consumer/5steps.htm>)
- **TeamSTEPPS™ National Training Network**—resources for implementing a Crew Resource Management program (<http://teamstepps.ahrq.gov/>)
- **Patient Safety Organization (PSO) resources**—PSOs were authorized by the Patient Safety and Quality Improvement Act of 2005 to improve the quality and safety of US healthcare delivery by encouraging clinicians and healthcare organizations to voluntarily report and share quality and patient safety information without fear of legal discovery (<http://www.pso.ahrq.gov/>)
- The **Institute for Healthcare Improvement (IHI)** supports patient safety on its Web site with discussions, tools, and other resources.⁹ The IHI has sponsored numerous collaborative sessions that examine patient safety issues and develop interventions to create a safer healthcare system.
- Many “no blame” safety reporting Web sites have arisen, such as that sponsored for the state of New Jersey by the state Department of Health and Senior Services.¹⁰ These sites were developed to encourage reporting of patient safety problems that have occurred in practice in a way that does not involve blame assessment, with the goal of obtaining enough data to analyze for designing patient safety interventions based on error prevention and process improvement.

The compelling need to improve patient safety has placed increasing emphasis on quality improvement, which uses tools like root cause analysis, failure mode and effects criticality analysis, and sets Six Sigma limits to reduce errors to very low levels.¹¹ The Six Sigma approach has become more prevalent in the healthcare industry over the past several years, and evidence indicates that the approach is effective, if deployed correctly.

Carolyn Pexton of GE Healthcare reviewed several Six Sigma initiatives at several healthcare organizations and found success when the following factors were present:¹²

- Strong leadership involvement and support
- Techniques to promote culture change and break down silos
- Selecting the “best and brightest” for Six Sigma leadership
- Project-based training and mentoring for an adequate number of Green Belts, Black Belts, and Master Black Belts
- Selecting and scoping projects to achieve financial and quality results
- Measurable objectives aligned with organizational goals
- Clear roles and responsibilities
- Over-communicating by a factor of 1,000
- Attention to the Control Phase to maintain results
- Project tracking and reporting capabilities
- Accountability and recognizing achievements

These diverse approaches—patient safety tools and interventions, Six Sigma, and institutional initiatives—are directed at the issue of patient safety, a problem that has finally achieved “top of mind” status in the healthcare industry. Society is demanding safer care, but at the same time pressure is mounting to reduce the cost of care as well, which is the third major issue facing the industry.

REDUCING COST

Although the Six Sigma philosophy fits best with the need to improve patient safety by reducing errors, it also can apply to improving efficiency. On the other hand, the lean process management approach pioneered by Toyota in the 1950s has been effectively applied to improving efficiency in healthcare organizations. Many healthcare institutions have adopted some semblance of the Toyota Production System (TPS) to reduce nonvalue-added work and associated costs. The TPS includes a number of tools that can be applied to process improvement and management, all targeted at reducing unnecessary effort and what is termed “muda” (waste) in the lean process management paradigm. Notably, TPS and Six Sigma approaches use many of the same tools, which will be described in later chapters.

Six Sigma has provided remarkable cost savings in a number of industries, however. General Electric, one of the pioneers in use of Six Sigma, demonstrated the efficacy of the approach in cost cutting.¹³ Other companies have shown similar results, and some healthcare organizations have also produced cost savings by improving the quality of their operations.¹⁴ These results are part of the reason that lean and Six Sigma have become such important philosophies in quality management in the healthcare industry.

QUALITY FRAMEWORKS

As we begin to delve into the tools used by quality improvement (QI) professionals, it is important to establish a framework for use of these tools. A traditional QI framework established by Shewhart decades ago is “Plan-Do-Check-Act,” often abbreviated PDCA. As indicated in **Figure 1-8**, this cycle follows a prescribed sequence of steps that is repeated iteratively until a desired goal is achieved. Each step of the sequence has a particular set of associated tasks:

- **Plan**—evaluation of a quality problem and development of a solution to the problem
- **Do**—implement the solution over a predetermined time period
- **Check**—measure the effects of the intervention using metrics defined during the Plan Phase
- **Act**—determine if the intervention was successful and set up control mechanisms to perpetuate the new process

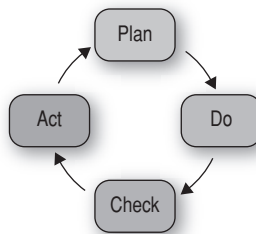


FIGURE 1-8 Plan-Do-Check-Act Cycle

Once the cycle has completed it may be repeated to continually refine solutions to quality issues. This approach has been used successfully in many industries for many years, and actually served as the basis for the Six Sigma approach developed by Bill Smith and Mikel Harry at Motorola in the 1980s.

Six Sigma started as the brainchild of Smith and Harry in response to serious quality problems at Motorola. They were given the job of bypassing the typically incremental gains of the company’s quality system and developing a program that would set higher goals and achieve objectives more quickly. Building on PDCA, they proposed another framework—MAIC—which evolved to DMAIC, which stands for Define-Measure-Analyze-Improve-Control. This framework, as shown in **Figure 1-9**, extended PDCA with more advanced statistical tools to create a measurement-oriented system that ensured improvements that could be demonstrated with objective metrics. We will use the DMAIC framework to examine the tools available to the quality professional throughout this book.

The similarities between these two approaches are important to note since DMAIC was a natural progression from PDCA; however, DMAIC emphasizes some important characteristics of quality that have become standard in health care, e.g., the concepts of understanding a problem through use of data and statistical analysis prior to intervening and of ensuring that any gains achieved through an intervention are sustained by putting appropriate quality assurance methods in place. These concepts are easily understood in health care, since they serve as the basis for treatment

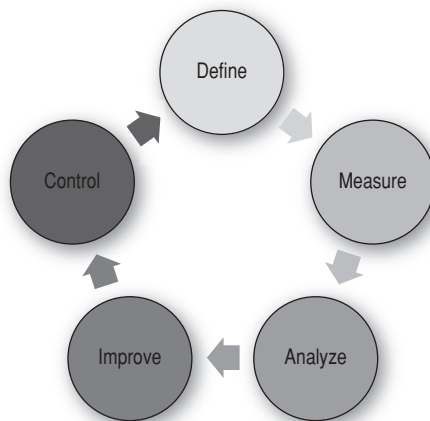


FIGURE 1-9 Define-Measure-Analyze-Improve-Control

and diagnostic modalities. For example, when a practitioner encounters a patient with hypertension, diagnostic procedures are performed and analyzed to determine the underlying cause of the condition, and then specific therapies are applied to remedy the situation. Once a therapeutic combination has demonstrated efficacy, the practitioner uses the information to implement programs to maintain the gains through maintenance medications, lifestyle changes, and other approaches. Thus, the diagnostic and therapeutic framework used in treating patients closely parallels that of DMAIC, making the paradigm particularly resonant with healthcare workers.

WHEN WILL QUALITY BECOME “JOB 1”?

A popular Ford automobile commercial in the 1980s featured employees from a variety of sites in a Ford Motors facility stating: “At Ford, quality is Job 1.”¹⁵ Although the US automotive industry suffered immensely during the economic downturn in 2008, Ford actually remained afloat without external assistance, and emerged in a stronger position after the recession ended. This resilience is in part due to shrewd financial management, but it also can be ascribed to this renewed emphasis on quality. Similarly, the importance of quality measurement, improvement, and reporting has grown immensely in recent years. Hospitals have become particularly scrutinized, and the Centers for Medicare and Medicaid Services have made hospital quality information available on the Web.¹⁶ This Web site allows comparison of hospital quality data across several hospitals and is searchable in several ways, like zip code, city name, state, or county, and then stratifies the data by clinical condition or surgical procedure, if desired. Other institutions are also featured on CMS Web sites:

- Nursing Homes—www.medicare.gov/NHCompare
- Home Health Agencies—www.medicare.gov/HHCompare
- Dialysis Facilities—www.medicare.gov/Dialysis

Additionally, Medicare health maintenance organizations (HMOs) and Part D drug plans (PDPs) are ranked on separate Web sites:

- Medicare Advantage plans (HMOs)—www.medicare.gov/MPPF
- Part D plans—www.medicare.gov/MPDPF

In addition to these federally sponsored sites, other organizations have also created Web sites for comparing healthcare entities. A few examples include:

- North Carolina Hospital Quality Performance Report (<http://www.nchospitalquality.org/>)—a site sponsored by the North Carolina Hospital Association that compares overall performance of hospitals in the state for several clinical conditions (e.g., heart attack, heart failure, pneumonia, and surgical care) using publicly available data.
- The Joint Commission (www.qualitycheck.org)—a Web site sponsored by the largest US accreditation organization with data from accreditation reports for every institution that they review.
- The Leapfrog Group (www.leapfroggroup.org)—a consortium of US industrial giants and other businesses, The Leapfrog Group has worked for many years to improve the effectiveness and efficiency of the healthcare industry. The organization now reports on multiple measures through a voluntary reporting system for a variety of clinical conditions. The database is searchable by a number of location factors, such as city, state, or zip, and the results may be displayed graphically or in numeric format.
- HealthGrades (www.healthgrades.com)—this Web site provides reports on physicians and other healthcare providers by locality. These reports pull data from a variety of public sources and assemble a report of each physician, hospital, or nursing home. Although these reports are costly, they provide a reasonably comprehensive view of each provider.

Consumers now have several ways to review and evaluate quality data about providers and payers, and the public reporting of this information will create a drive for healthcare organizations to improve performance that should help make quality become “Job 1.” The application of quality improvement tools will ensure that quality professionals will have an important part to play in the healthcare delivery system for decades to come.

DISCUSSION QUESTIONS

1. Discuss the evolution of managed care payment systems in societal efforts to control healthcare costs and improve quality. How has the federal government been involved?

2. In what ways has the healthcare industry responded to society's concerns about the quality and safety of health care? Discuss the approaches taken by each sector of the industry.
3. What programs have organizations like The Joint Commission, the Institute for Healthcare Improvement, and the Agency for Health Research and Quality formulated to improve quality and safety in health care?
4. Explain the use of "no blame" safety reporting programs in identifying and remediating quality of care issues.
5. How does quality relate to cost? Can improvements in quality and safety reduce costs? Why or why not?
6. What is the PDCA cycle? How does it relate to improvement of healthcare quality?
7. What is DMAIC? How does it relate to improvement of healthcare quality?
8. What will stimulate the healthcare industry to make quality "Job 1"?

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