

Quality of Care

In its 2001 report, *Crossing the Quality Chasm*, the Institute of Medicine (IOM) Committee on Quality of Health Care in America made the bold statement that “Americans should be able to count on receiving care that meets their needs and is based on the best scientific knowledge. Yet there is strong evidence that this frequently is not the case.” Recent results from the National Scorecard on U.S. System Performance, developed by The Commonwealth Fund’s Commission on a High Performance Health System, indicate, in fact, that the system falls short of what is attainable. When judged against 37 performance indicators such as infant

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mortality; childhood immunization rates; activity limitations for non-elderly adults; access to primary care providers; reported errors; and hospital and nursing home readmission rates; the system received a score of 66 out of a possible 100 when compared to benchmark performance¹ (The Commonwealth Fund 2006).

There are four major quality problems affecting the health care system:

- **Avoidable Errors:** Between 44,000 and 98,000 Americans die each year from medical errors, surpassing the number of deaths related

to car accidents, breast cancer, or AIDS. Medical errors are not simply mistakes but rather the “failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim” (IOM 2000).

- **Underutilization of Services:** An estimated 18,000 people die annually because they do not receive effective interventions. Millions more suffer needless complications (AHRQ 2002).
- **Overuse of Services:** One analysis of seven health plans found that one out of every six hysterectomies performed was inappropriate. Another study looking at use of antibiotics for ear infections in children found that medications were used far more often than indicated (AHRQ 2002).
- **Persistent Variations in Use of Services:** Quality improvement is both needed and possible, although the IOM committee warned that “this higher level of quality cannot be achieved by further stressing the current systems of care...the current systems cannot do the job. Changing systems of care will” (IOM 2001).

The Evolution of Quality

The way in which quality is understood has changed dramatically over the last two decades. It has evolved from a time when quality was an ephemeral concept, thought to be knowable only to physicians, to the notion that quality is a measurable product of system performance. This evolution happened at a time of substantial changes in the U.S. health care system, including advances in

¹ Benchmark comparison rates were those achieved by the top 10 percent of countries, states, health plans, hospitals, or other providers.

EVERYONE IS AT RISK FOR RECEIVING POOR HEALTH CARE

In the *First National Report Card on Quality of Health Care in America*, released in 2006, RAND Corporation assessed how often recommended care was provided to patients for a broad range of conditions in 12 U.S. metropolitan areas. The stunning conclusion: all adults in the U.S. are at risk for receiving poor health care, no matter where they live; why, where, and from whom they seek care; or what their race, gender, or financial status is. Specific findings include:

- overall, adults receive about half of recommended care;
- quality of care varied across conditions, and across communities for the same condition;
- no community has consistently the best or worst quality of care;
- all socioeconomic groups were at risk for poor care; and
- systemwide investments in health care information technology, performance tracking, and incentives for improvements are needed.

Source: RAND Corporation, *The First National Report Card on Quality of Health Care in America* (Santa Monica, CA: 2006).

medicine, technology, and pharmaceuticals; changes in the payment policies and demands of public and private payers; a shift in the locus of care from inpatient to outpatient settings, and new expectations about the roles that consumers should play in the delivery of health care services.

Concern for the quality of health care services started in the early 20th century when the American Medical Association (AMA) and the American College of Surgeons (ACS) began to document the state of health care facilities, review the care provided, and develop minimum standards. The ACS also took on the role of surveying hospitals and determining acceptability for accreditation. This work ultimately led to the creation of the Joint Commission on Accreditation of Hospitals in 1952 (Luce et al. 1994).

Governmental regulation of health care began with state licensing rules for health professionals, first enacted in the late 1880s. For the most part,

however, health care was largely unregulated until passage of the Social Security Act (SSA) in 1935, which set standards for maternal and child services. Hospitals constructed with federal Hill-Burton dollars in the post World War II era led to new requirements to meet minimum codes. Passage of the Medicare program in 1965 led to a higher level of federal involvement. With the U.S. government acting as the payer for services for millions of elderly and disabled beneficiaries, the new law included conditions of participation, a set of rules mandating principles central to operating a hospital, such as professional credentials for staff, 24-hour nursing services, and utilization review. Medicare deemed hospitals accredited by the Joint Commission to have met all the regulatory requirements, with the exception of utilization review (Luce et al. 1994).

These initial efforts primarily focused on the structural aspects of care: the basic characteristics of institutions and health professionals. Over time,

these were complemented by an additional focus on process; that is, not just whether the right people and facilities are available, but also if the right things are being done in the right way. In 1979, the Joint Commission developed new hospitalwide quality assurance programs, incorporating measures such as hospital readmission rates and transfers to intensive care. In 1984, the U.S. Congress created peer review organizations (PROs) to monitor the cost and quality of care received by Medicare beneficiaries (Luce et al. 1994).

During this same time period, John Wennberg and colleagues at Dartmouth Medical School began documenting large variations in health care usage across different geographic areas. The effort to uncover the reasons behind these variations led Wennberg and others to focus their attention on the outcomes of care and the potential of developing practice guidelines that would help professionals practice at a higher standard of quality. The Omnibus Budget Reconciliation Act of 1989 (OBRA) authorized greater federal funding for effectiveness and outcomes research, essential building blocks for quality measurement, as well as a new program to develop and disseminate practice guidelines, clinical standards, review criteria, and performance measures. This work was to be carried out by a new federal entity, the Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality). In 1992, the federal Health Care Financing Administration (now the Centers for Medicare and Medicaid Services) established the Health Care Quality Improve-

ment Program, which allowed PROs to compare a hospital patient claims history against practice guidelines, analyze areas for improvement, and assess changes. In 1995, the program's scope broadened to include assessments of care received in outpatient settings (Grant et al. 1996).

A series of seminal reports detailing serious health care quality problems set the stage in the 1990s for the current national conversation on health care quality. In 1998, the President's Advisory Commission on Consumer Protection and Quality, called for a national commitment to improved health care quality, stating that "research documents the fact that today, in America, there is no guarantee that any individual will receive high-quality care for any particular health problem" (IOM 2001). Soon after, RAND released the results of an extensive literature review supporting the findings of the two previous reports. RAND concluded that there was "abundant evidence that serious and extensive quality problems exist throughout American medicine resulting in harm to many Americans" (IOM 2001).

Two other IOM reports, *To Err is Human: Building a Safer Health Care System* and *Crossing the Quality Chasm: A New Health System for the 21st Century*, released in 2000 and 2001, respectively, galvanized the quality improvement movement.

In *To Err is Human*, the IOM documented the magnitude of unnecessary deaths and injuries caused by avoidable medical errors and called on the nation's leadership to make reducing these errors a national priority. The central message of the report was that medical errors are the result of bad systems, not bad people. To fix the problem, the focus should be on redesigning these systems, not on changing individual behaviors.

Crossing the Quality Chasm stated that "health care harms too frequently and routinely fails to deliver its potential benefits" (IOM 2001). It identified quality as a property of the health care system and stressed the importance of applying evidence-based research to health care delivery, harnessing the power of information technology, aligning payment policies with quality improvement, and preparing the health care workforce to acquire new skills and new ways of relating to patients. The report also set forth a road map for building a high-quality, 21st century health care system.

Based on the IOM's work, the notion of quality has now moved from simple notions of structure, process, and outcome to being defined as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge

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(IOM 2001). Its key dimensions, as set forth by the IOM, are:

- Safety: avoiding injuries to patients from the care that is intended to help them;

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- Effectiveness: providing services based on scientific knowledge and avoiding overuse and underuse of services;
- Patient-Centeredness: providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide clinical decisions;
- Timeliness: reducing waits and sometimes harmful delays for those who receive and those who provide care;
- Efficiency: avoiding waste, including equipment, supplies, and energy; and
- Equity: providing care that does not vary in quality because of person characteristics such as gender, race, ethnicity, or socioeconomic status.

These dimensions of quality encompass both technical aspects of care and the degree to which it comports with patient preferences. Patient care should be delivered by systems that are designed to meet these six dimensions (IOM 2001).

The IOM's work both spurred and refined quality improvement efforts in the public and private sectors and compelled many leaders in the field to call for major systems change. Organizations such as the Institute for Healthcare Improvement (IHI) and the Leapfrog Group for Patient Safety seized the opportunity created by these reports to transform the call for quality improvement into action. Working with hospitals and health systems, these organizations and others pushed for redesigning systems of care through evidence-based guidelines and practices. The IOM report spurred action at the federal level, too. AHRQ, for example, is working to disseminate research findings and educate policymakers, health care practitioners, and the public on a range of quality issues from patient safety and medical errors to finely honed quality measurement tools.

Measuring Quality

Twenty five years ago, quality, like beauty, was judged to be in the eye of the beholder. While quality measurement remains a developing science, there are now some generally accepted measures that reflect how care is delivered and how patients respond. Clinical performance measures look at how well providers treat or prevent illness. These include process measures such as receipt of preventive care, provision of counseling regarding promoting

healthy behaviors, or screening for treatable conditions. For example, the Health Plan Employer Data and Information Set (HEDIS), developed by the National Committee for Quality Assurance (NCQA) to compare how well health plans perform in key areas, includes indicators such as beta-blocker treatment after a heart attack, control of high blood pressure, breast cancer screening, antidepressant medication management, childhood and adolescent immunizations, and smoking cessation.

Measures have also been developed about other aspects of the delivery system. Measures of accessibility, such as appointment wait times and how long it takes someone to answer the telephone, reflect how easily and quickly consumers receive care. Measures of experience reflect patient opinion about the health plan or provider and the care and services received. This includes patients' ratings as well as reports on their interactions with a doctor or nurse and their ability to get needed information from their plan or provider. AHRQ's Consumer Assessment of Healthcare Providers and Systems, universally known as CAHPS, has become the national standard for assessing individuals' experiences with health plans. It includes more than 40 questions that ask consumers to report on and rate their experiences with aspects of care such as access, communication, timeliness, administrative ease, and courtesy. Finally, structural measures, such as board certification and accreditation, are also used to measure quality. These indicate whether a provider, plan or institution has systems or organizational traits that are associ-

ated with or considered minimum standards of high-quality care (AHRQ 2005).

Philanthropic Activity

Health grantmakers play a vital role in promoting improvements in health care quality. While the mission statement of most grantmaking organizations may not explicitly refer to improving quality, activities designed to improve the quality of health care fall squarely within the mission of most health care foundations. Specific roles for foundations include convening stakeholders, promoting system improvements, educating consumers, influencing public policy, and funding research. There are opportunities within each of these areas, for grantmakers working at the national, state, and local levels.

CHALLENGE: TRANSLATING RESEARCH INTO PRACTICE

A major challenge to improving health care quality is the translation of research findings into improvements in patient outcomes. It takes an average of 17 years for new knowledge generated by randomized controlled studies to become part of routine clinical practice. In addition, the implementation of best practices is uneven across provider settings. For example, only about three out of five patients with chronic conditions receive recommended care (AHRQ 2001).

While evidence-based practice guidelines are seen as critical tools for helping physicians and other health professionals make the best decisions about appropriate care in specific clinical circumstances, growth in the number of guidelines available can be daunting. In the state of Colorado, where physicians felt inundated and confused by the many and sometimes conflicting guidelines created by health plans, medical societies, government, and private agencies, The Colorado Trust stepped up to help develop the Colorado Clinical Guidelines Collaborative (CCGC) as part of its three-year \$1.3 million Improving the Quality of Patient Care Initiative. Caring for Colorado Foundation, Robert Wood Johnson Foundation, and the Colorado Department of Public Health and the Environment also provided funding for the collaborative. CCGC is developing a comprehensive set of guidelines for management of adult patients with diabetes, diagnosis and management of adults with depression, screening for colorectal cancer, evaluation and treatment of asthma, appropriate use of antibiotics in upper respiratory infections, pediatric and adult immunizations, tobacco cessation, and gestational diabetes. These are revised on a one-to three-year cycle. Additionally, CCGC will refine and improve upon how the guidelines are shared with the health care community. The initiative is being evaluated by Colorado

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Health Outcomes. The program's evaluation is focusing on the effectiveness of various strategies to disseminate the adult and pediatric immunization guidelines, and to determine which strategy leads to greater implementation by providers. One result of the foundation's quality initiative has been an increased level of collaboration among organizations in the state working on health care quality.

CHALLENGE: SYSTEM REDESIGN

Our current system of care does not deliver the level of care patients should receive. The IOM suggests that "health care has safety and quality problems because it relies on outmoded systems of work...If we want safer, higher-quality care, we need to have redesigned systems of care." For example, providers often work in silos, treating patients without complete medical history or information about medications, treatments, or services previously or currently being provided by others (IOM 2001).

The Commonwealth Fund's Health Care Quality Improvement and Efficiency program is based on the premise that system change is most likely to occur when a problem is understood and publicly recognized, when appropriate incentives are identified and implemented, and when stakeholders have the capacity to initiate and sustain change. Consistent with this model of change, the program has funded a number of projects aimed at: providing reliable information about the quality and efficiency of care to the public and the health care industry; evaluating the business case for improving quality and efficiency; improving

coordination of care and teamwork among health care professionals; and facilitating the exchange of information between physicians and patients.

To assess and reduce medication errors, The Commonwealth Fund awarded a series of grants to the Health Research and Educational Trust. The first grant, in 2000, supported the distribution a self-assessment tool to hospitals and health systems throughout the country. Approximately 1,000 hospitals were then contacted to see if they used the self-assessment tool, encourage them to do so, and collect information on the state of medical safety practices. Results showed that the majority of hospitals were not performing up to recommended safety standards. A need for educational strategies that can be implemented by multidisciplinary hospital teams was also identified. As a result of these findings, the foundation awarded a second grant in 2001 to the trust to support activities in several related areas, including communication among hospital staff regarding drug management decisions, drug labeling and nomenclature, and access to drug information at the time clinicians are making treatment decisions. The grant also supported the convening of quality improvement and medical safety leaders to develop core educational curricula and tools for hospitals.

The national 100K Lives Campaign, launched by the Institute for Healthcare Improvement in 2005, seeks to implement key practices that improve health care system functioning, as well as patient outcomes. With support from foundations including Aetna Foun-

dation, Blue Shield of California Foundation, Cardinal Health Foundation, The Colorado Trust, Gordon and Betty Moore Foundation, and Robert Wood Johnson Foundation, the campaign was joined by hospitals and health systems across the country that implemented six proven interventions to reduce avoidable deaths: deployment of rapid response teams; delivering reliable, evidence-based care for heart attack patients; preventing adverse drug events; preventing central line infections; preventing surgical site infections, and preventing ventilator-associated pneumonia. As of June 14, 2006, IHI estimated that the campaign had exceeded its initial goal, saving more than 122,300 lives.

As a campaign partner, The Colorado Trust made a \$3.8 million grant to help 62 Colorado hospitals implement the campaign, measure its progress, and track mortality rates. Participating hospitals were required to submit a progress report to the foundation at the end of the campaign. To generate public awareness of the campaign, as well as to raise visibility of quality issues, The Colorado Trust also funded a comprehensive public awareness campaign.

The foundation is now planning to support a second phase of the 100K Lives Campaign in Colorado, building upon lessons learned in the first round. For example, The Colorado Trust is seeking greater accountability from hospitals by requiring progress reports every six months instead of just one report as required in phase one. Phase two grants will also require increased internal communications among hospital departments in order to more effectively

spread the success of the campaign. The foundation's communication with grantee hospitals will also be strengthened by reaching out to a multidisciplinary team of practitioners, not just executive management or quality officers. In addition, the foundation will seek to increase each hospital's governance and leadership on quality issues by reaching out to CEOs and actively involving them in the campaign. Finally, foundation staff hope to mesh the success of the 100K Lives Campaign with the foundation's clinical guidelines initiative. This would move the quality achievements of hospitals into ambulatory care settings.

One of the earliest coalitions to address patient safety and medical errors is the Pittsburgh Regional Health Initiative (PRHI), a supporting organization of the Jewish Healthcare Foundation. Founded in 1997 as a consortium of Pittsburgh-area health care, business, nonprofit, and civic leaders, the initiative helps its clinical partners improve patient outcomes through proven engineering principles adapted for health care from the Toyota Production System. With support from the Jewish Healthcare Foundation, as well as other area foundations, PRHI partners are implementing best practices in cardiac care, reducing pathology errors, and developing new protocols for the care of patients with chronic conditions such as diabetes. In fact, PRHI's infection control program is among the nation's largest; and 40 Pittsburgh area hospitals have reduced infection rates by at least 68 percent (Jewish Healthcare Foundation 2006). The Pittsburgh Veterans Administration Health System, with coaching from PRHI, elimi-

nated a highly drug resistant strain of staph infection from its surgical units. With additional support from the Jewish Healthcare Foundation, PRHI is now applying its quality improvement model to the long-term care setting.

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Another component of PRHI is Perfecting Patient Care™ (PPC), a curriculum designed to bring engineering disciplines to bear on clinical practice. PRHI staff members teach the curriculum to doctors, nurses, health care administrators, and other health care professionals in an intensive, four-day program known as PPC University. PPC encourages small improvements that are designed, quickly tested, and modified as necessary by frontline workers. Supervisors are partners or teachers in this process and rapid-cycle problem solving and learning are results. PPC University also includes on-site patient-care modules for frontline staff and managers in both long-term and acute-care settings. Topics include communication, conflict management, working within teams, team building/development, basic problem solving, rapid-cycle problem solving, and delegating for success.

CHALLENGE: INFORMATION TECHNOLOGY

Information technology (IT) is critical for measuring and monitor-

ing the quality of health care. It is also important for communicating quality of care to consumers, policymakers, regulators, and other audiences. Foundations are uniquely positioned to support the spread of information technology and assist in the development of Web-based

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applications that can improve access to health information and even improve patient-provider communication. For example, the Markle Foundation's Information Technologies for Better Health initiative aims to accelerate consumer use of information technologies in ways that improve health and health care. Under this initiative, the foundation provided support to the Comprehensive Health Enhancement Support System (CHESS) to evaluate ways in which underserved women with breast cancer use and benefit from a computerized patient support system, focusing on women in rural areas of Wisconsin and inner city neighborhoods of Detroit. CHESS provides breast cancer patients with up-to-date health information, software to help weigh treatment options, and 24-hour access to medical experts and other patients via the Internet. The positive evaluation results have led to the program's use as a tool for breast cancer patients in rural areas.

In collaboration with the Partners Healthcare System and FACCT

(Foundation for Accountability), the Markle Foundation also supported the Patient Accessible Electronic Medical Record project. This program has examined the implications of linking patients and physicians to medical records via the Internet. Preliminary findings from the project indicate that, while most patients find the tool useful for administrative tasks, such as renewing prescriptions and requesting referrals, a significant proportion are unsure about whether it improves the quality of communication, affords adequate privacy, or saves time. On the other hand, doctors and administrative staff are relatively enthusiastic about the tool, although they have some concerns, such as the fact that doctors are not financially compensated for their time spent responding to patient e-mails. Analyses are underway on how this Internet tool might enhance quality in the future by altering patient behavior. For example, providers could send electronic reminders to take medication. The tool may also help patients to identify and correct errors in their own medical records in collaboration with health professionals.

In California, a unique collaboration between the Tides Foundation and The California Endowment provides resources, evidence-based programming and evaluation, and education and training to support community health centers and clinics. The Community Clinics Initiative (CCI) has distributed more than \$30 million since 1999 to increase IT capacity in these settings and promote its use to assess and improve health care quality. The initiative began in 1999 with a project to address technological issues associated with the arrival

of the year 2000 (Y2K). This work was the first step in responding to the IT needs of the state's clinics. The program then evolved to address the internal IT needs of clinics by bringing clinics up to a minimum level of IT capacity, as well as supporting connectivity between clinics. This need led to the development of an extranet, enabling CCI staff to exchange ideas and lessons learned from the field, streamline grantee reporting, and improve CCI's ability to deliver technical assistance to clinics.

More recent work has focused on the use of disease registries that allow clinics to efficiently track chronic disease patients. At a basic level, registries allow clinics to follow treatments and services received by patients and to monitor provider performance. They also allow clinics to provide feedback to patients. For example, some of the more sophisticated programs allow a provider and patient to sit at the computer together and graphically look at a patient's progress. Registries can also track organizationwide progress against selected evidence-based guidelines. Information technology also allows community clinics to link patient encounter data with evidence-based medicine. For example, in Alameda County, California, encounter data is linked to practice guidelines to generate quarterly performance reports. The reports allow providers and patients to see how each facility is doing on selected practices. Data can also be sorted demographically and used to report variations in performance based on specific populations.

CHALLENGE: CONSUMER ENGAGEMENT

Consumers can play an important role in improving health care quality and the responsiveness of the health system to their needs. Whether they are choosing a health plan or provider, selecting a course of treatment, or incorporating healthy choices into their daily lives, empowered and engaged consumers can be a force for change. While the amount of health information available has grown by leaps and bounds, consumers often have difficulty interpreting and using such information.

Grantmakers have an important role to play in ensuring that understandable and useable information reaches consumers. The Commonwealth Fund, for example, has supported a broad body of work to collect and present quality information. Research supported by the fund found that many of the Web sites that consumers turn to for information on health care providers have missing or out-of-date information, as well as limited search capabilities. By making measures of provider quality available, such tools can help consumers in the selection process and lead to more informed care choices. These findings spurred a grant to the National Committee for Quality Assurance to develop an advisory group to create standards for physician directories. Based on the advisory group's recommendations, the Midwest Business Group on Health conducted a demonstration project in which a group of Chicago-based health plans, hospitals, and physician organizations implemented the recommended standards and evaluated the cost and value of doing so. This work yielded a blueprint for creating physician

directories that meet NCQA recommended standards.

Another way to make information accessible is to produce and disseminate it. California HealthCare Foundation has a strong track record in the area of quality measurement and reporting. An integral part of this work has been to educate consumers about health care quality and to make comparative quality information readily available. The foundation has developed a rich array of strategies, educational materials, and tools to help Californians make informed health care decisions. Specifically, the foundation supported the development of Web sites such as CalHospitals.org and the California Nursing Home Search Web site. Through these programs, quality information is collected, analyzed and then made public. The nursing home search Web site, for example, makes quality performance information publicly available on a quarterly basis in four areas: clinical quality, federal and state deficiencies, economic performance, and staffing. Over time, the foundation has found that these Web-based tools are not only excellent at conveying information to the public, but that public reporting has spurred improvement in quality. For example, in two years, there was a 20 percent decrease in the number of nursing homes not in compliance with minimum nurse staffing standards.

Foundations are also uniquely positioned to assist in the development of Web-based applications that can improve the flow of health information and improve patient-provider communication. The Blue Shield of California Foundation's

Center for Technology and Health supports research on the impact of information technology for both patients and providers. In 2001, the center supported an evaluation of RelayHealth, an on-line communication tool for patients, providers, payers, and pharmacies. RelayHealth facilitates clinical consultations about nonurgent medical symptoms via a secure Internet connection.

Public reporting on the quality of care offered by different providers has spurred improvement in quality.

Evaluation results of RelayHealth used by patients and providers in the Blue Shield of California health plan network revealed reductions in both office visits and total cost of care. In addition, physician and patient surveys showed that the majority of both groups found the service easy to use, satisfying, and preferable to an office visit. The research also revealed that physician reimbursement was critical to making tools such as this successful. Tools such as RelayHealth can help improve health care quality by increasing patient access to providers in nonemergency situations. It can also improve consumer satisfaction by reducing appointment wait times and unnecessary physician office visits, as well as enhancing access to prescription medications, when needed.

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Fast Facts

Definition

The Institute of Medicine (IOM) defines quality as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (IOM 2001).

The key dimensions of quality, as set forth by the IOM, are:

- Safety: avoiding injuries to patients from the care that is intended to help them;
- Effectiveness: providing services based on scientific knowledge and avoiding overuse and underuse of services;
- Patient-Centeredness: providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide clinical decisions;
- Timeliness: reducing waits and sometimes harmful delays for those who receive and those who provide care;
- Efficiency: avoiding waste, including equipment, supplies, and energy; and
- Equity: providing care that does not vary in quality because of personal characteristics such as gender, race, ethnicity, or socioeconomic status (IOM 2001).



Some Improvements in Quality, But Gaps Remain

During 2005, the overall quality of U.S. health care improved at the rate of 2.8 percent, the same rate of improvement as 2004. In 44 core quality measurement categories, 23 improved, 19 were unchanged and only two became worse. In 2005 there was a more rapid improvement in some measures, especially where there have been focused efforts to improve performance. For example, measures for heart attack, heart failure and pneumonia showed an annual improvement of 9.2 percent (AHRQ 2005).

The diseases and populations which showed the most improvement in quality measures in the *2005 National Healthcare Quality Report and Disparities Report* were diabetes, heart disease, respiratory conditions, nursing home care, and maternal and child health care. The overall rate of change for these measures was 5.4 percent (AHRQ 2005).

The diseases and populations which showed the least improvement in quality measures were HIV/AIDS, cancer, end stage renal disease, mental health and substance abuse, and home health care. The overall rate of change for these measures was 0.3 percent (AHRQ 2005).

The *First National Report Card on Quality of Health Care in America* concludes that, overall, adults in the U.S. receive about half of recommended care. In addition, quality varies substantially across conditions. For example, about 65 percent of patients with high blood pressure receive recommended care while only 11 percent of those with alcohol dependence received recommended care (RAND 2006).

Insurance coverage does not ensure receipt of quality health care. Individuals with no health insurance receive about 54 percent of recommended care, compared to 55 percent of those with Medicaid or managed care coverage, 57 percent for Medicare enrollees, and 54 percent for those with private non-managed care plans (RAND 2006).

Between 36 percent and 45 percent of English-speaking U.S. residents have basic or below-basic general literacy and lack the literacy skills necessary to deal with health-related tasks (The Commonwealth Fund 2006).



Translating Research Into Practice

It takes an average of 17 years for new knowledge generated by randomized controlled studies to become part of routine clinical practice (AHRQ 2001).

Implementation of best practices is uneven across provider settings. For example, only about three of five patients with chronic conditions receive recommended care (AHRQ 2001).

Patient Safety and Medical Errors

Medical errors are “the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.” They can occur in practice, products, procedures, and systems (IOM 2006, AHRQ 2000).

Between 44,000 and 98,000 Americans die annually as a result of medical errors, more than from motor vehicle accidents, or breast cancer, or AIDS (IOM 2000).

Medication errors, both in and out of the hospital, result in more than 7,000 deaths each year (IOM 2000).

Approximately 95 percent of medical errors are system errors—the result of characteristics of procedures, equipment, job design, and communication systems (Berwick 2000).



Public Reporting and Consumer Quality Information

In New York State, outcomes for coronary artery bypass graft surgery have been reported for all surgeons each year since 1991. Close to two-thirds of managed care plans in the state look at the reports and use them in their contracting decisions. As a result, surgeons with better reported outcomes experienced an increase in market share (Mukamel et al. 2005).

Report cards are primarily used to convey quality information to consumers about health plans, large provider groups, and hospitals. A 2004 survey by The Henry J. Kaiser Family Foundation found that only a third of consumers had seen report cards of any kind. This represented an increase from 27 percent in 2000 (The Henry J. Kaiser Family Foundation 2004).

The Internet is transforming how consumers access and use health care information. While estimates vary, as many as 70 million Americans now use the Internet to retrieve health information and there may be as many as 100,000 health-focused Web sites (IOM 2001).

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RAND Corporation, *The First National Report Card on Quality of Health Care in America* (Santa Monica, CA: 2006).

Patient Safety and Medical Errors

Medical errors are “the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.” They can occur in practice, products, procedures, and systems (IOM 2006, AHRQ 2000).

Between 44,000 and 98,000 Americans die annually as a result of medical errors, more than from motor vehicle accidents, or breast cancer, or AIDS (IOM 2000).

Medication errors, both in and out of the hospital, result in more than 7,000 deaths each year (IOM 2000).

Approximately 95 percent of medical errors are system errors—the result of characteristics of procedures, equipment, job design, and communication systems (Berwick 2000).



Public Reporting and Consumer Quality Information

In New York State, outcomes for coronary artery bypass graft surgery have been reported for all surgeons each year since 1991. Close to two-thirds of managed care plans in the state look at the reports and use them in their contracting decisions. As a result, surgeons with better reported outcomes experienced an increase in market share (Mukamel et al. 2005).

Report cards are primarily used to convey quality information to consumers about health plans, large provider groups, and hospitals. A 2004 survey by The Henry J. Kaiser Family Foundation found that only a third of consumers had seen report cards of any kind. This represented an increase from 27 percent in 2000 (The Henry J. Kaiser Family Foundation 2004).

The Internet is transforming how consumers access and use health care information. While estimates vary, as many as 70 million Americans now use the Internet to retrieve health information and there may be as many as 100,000 health-focused Web sites (IOM 2001).

Sources

Agency for Healthcare Research and Quality, *National Healthcare Quality Report and Disparities Report* (Rockville, MD: 2005).

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Agency for Healthcare Research and Quality, *Doing What Counts for Patient Safety: Federal Actions to Reduce Medical Errors and Their Impact: A Report to Congress* (Rockville, MD: 2000).

Berwick, Donald M., testimony before joint hearing of the Subcommittee on Health and Education and the Subcommittee on Oversight and Investigation, U.S. House of Representatives, February 9, 2000.

The Commonwealth Fund, “Health Literacy: Quality and Patient Safety Imperative,” *Quality Matters* (New York, NY: November 2006).

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

Institute of Medicine, *To Err is Human: Building A Safer Health System* (Washington, DC: National Academy of Press, 2000).

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Mukamel, Dana B., David L. Weimer, Jack Zwanziger, et al., “Quality Report Cards, Selection of Cardiac Surgeons, and Racial Disparities: A Study of the Publication of the New York State Cardiac Surgery Reports,” *Inquiry*, 41:435-446, Winter 2004/2005.

RAND Corporation, *The First National Report Card on Quality of Health Care in America* (Santa Monica, CA: 2006).

Recommended Reading

Agency for Healthcare Research and Quality, *National Healthcare Quality Report and Disparities Report* (Rockville, MD: 2007). Available on-line at www.ahrq.gov/qual/nhqr06/nhqr06.htm.

This report is a comprehensive national overview of quality of health care in the U.S. and includes 179 performance measures that can be used to monitor progress toward improved health care quality for all Americans. It presents, in chart format, the latest findings on the quality of health care in the general U.S. population, focusing on four components of quality: effectiveness, patient safety, timeliness, and patient centeredness.



Berwick, Donald M., *Escape Fire: Designs for the Future of Health Care* (Hoboken, NJ: John Wiley & Sons, 2003).

In this book Don Berwick, president and CEO of the Institute for Healthcare Improvement, outlines new designs for the nation's health care system and suggests practical tools for change. Berwick also identifies innovations and ideas from unusual sources, including a girls' soccer team and the safety standards at NASA.



Berwick, Donald M., *Escape Fire: Lessons for the Future of Health Care* (New York, NY: The Commonwealth Fund, 2002).

Based on his personal experiences with the health care system, Don Berwick describes "the enormous, costly, and painful gaps between what we got in our days of need, and what we needed." He outlines the problems with the health care system, including medical errors, confusing and inconsistent information, and a lack of personal attention and continuity in care, and then sketches a program for reform.



Grantmakers In Health, *Considering Quality: Engaging Consumers to Make Better Health Care Decisions* (Washington, DC: 2006).

This Issue Brief explore the challenges inherent in developing quality information, as well as how consumers

use such information. Opportunities for health funders to support health care quality information development and dissemination, as well as patient engagement in health care decisionmaking, are examined.



Grantmakers In Health, *Rx for Progress: Putting Patient Safety Into Practice* (Washington, DC: 2002). Available on-line at www.gih.org/usr_doc/patsafety_11-02.pdf.

This Issue Brief explores the work of foundations, government, research, and health care organizations to reduce medical errors and improve patient safety. The report draws on both foundation and grantee experiences and highlights specific funding strategies, as well as emerging opportunities for foundations that wish to fund patient safety programs and research.



Grantmakers In Health, *Advancing Quality Through Patient Safety* (Washington, DC: July 2001). Available on-line at www.gih.org/usr_doc/patientsafety.pdf.

The Institute of Medicine (IOM) estimates that between 44,000 and 98,000 lives are lost annually as a result of preventable medical errors. This Issue Brief examines the response to the medical errors crisis across the health care delivery system, as well as how grantmakers working at the national, state, and local levels can contribute to advancing quality through reductions in medical errors and improvements in patient safety.



Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, DC: National Academy Press 2001). Available on-line at www.iom.edu/?id=12736.

In this report, the IOM argues for fundamental change to close the quality gap; recommends a redesign of the U.S. health care system; and provides specific direction for policymakers, health care leaders, clinicians, purchasers, and others. The report also offers a set of rules to guide patient-clinician relationships, a suggested organizing framework to align incentives in payment and accountability with improvement in

quality; and key steps to promote evidence-based practice and strengthen clinical information systems.



Institute of Medicine, *To Err is Human: Building A Safer Health System* (Washington, DC: National Academy Press 1999). Available on-line at www.iom.edu/?id=12735.

In this report, the IOM sets forth a strategy by which government, health care providers, industry, and consumers can reduce preventable medical errors. It also sets as a minimum goal a 50 percent reduction in errors over the next five years.



Jantos, Laura and Michelle Holmes, *IT Tools for Chronic Disease Management: How Do they Measure Up?* (Oakland, CA: California HealthCare Foundation, 2006). Available on-line at www.chcf.org/topics/chronicdisease/index.cfm?itemID=123057.

This report reveals strengths and weaknesses of chronic disease management systems (CDMSs), which focus on managing chronic disease and preventive care and electronic medical records (EMRs), which document the entire patient encounter and provides real-time patient information. CDMSs rate highly for functionality, are significantly less expensive than EMRs, and are typically easier to implement; while EMRs rate highly in offering more robust technology systems and vendor capabilities.



Robert Wood Johnson Foundation, *Health Information Technology in the United States: The Information Base for Progress* (Princeton, NJ: October 2006). Available on-line at www.rwjf.org/files/publications/other/EHRReport0609.pdf.

This report, a joint project of the Robert Wood Johnson Foundation and the federal National Coordinator for Health Information Technology, provides a look at how doctors and hospitals are using information systems to drive improvements in quality.

McCarthy, Douglas, and David Blumenthal, *Committed to Safety: Ten Case Studies on Reducing Harm to Patients* (New York, NY: The Commonwealth Fund, April 2006). Available on-line at www.cmwf.org/Publications/publications_show.htm?doc_id=368995.

This report from The Commonwealth Fund presents case studies of health care organizations, clinical teams, and learning collaborations that have designed innovations that hold great promise for improving patient safety. The cases describe the actions taken, results achieved, and lessons learned by these patient safety leaders, with suggestions for those seeking to replicate their successes.



Ranganathan, Meghna, *What Do Americans Think About the Role of Quality of Care Information When Making Decisions About Their Health Care?* (Princeton, NJ: Robert Wood Johnson Foundation, 2006). Available on-line at www.rwjf.org/files/publications/other/researchhighlight_13.pdf.

This report from the Robert Wood Johnson Foundation summarizes a survey of Americans to determine their perceptions of the quality of care information they receive when making decisions about their health care. Findings include that 58 percent of Americans surveyed indicated that they were more likely to follow the recommendations of friends and family than expert ratings when choosing a physician or a medical practice.



Shaller, Dale, *Consumers In Health Care: Creating Decision-Support Tools that Work* (Oakland, CA: California HealthCare Foundation, June 2006). Available on-line at www.chcf.org/topics/healthinsurance/index.cfm?itemID=121893.

This report from California HealthCare Foundation examines increasing consumer involvement in health care decisionmaking. It looks at the various forms and functions of tools available to help consumers make more informed choices, as well as summarizes evidence regarding the effectiveness of these tools. The report also outlines barriers that limit consumers' use of these tools and suggests practical steps to address those barriers by improving the design, content, format, and distribution of information tools.