COMMISSION ON A HIGH PERFORMANCE HEALTH SYSTEM

MEASURING, REPORTING, AND REWARDING PERFORMANCE IN HEALTH CARE

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March 2006

ABSTRACT: Quality measurement and reporting in health care are crucial for identifying areas in need of improvement, monitoring progress, and providing consumers and purchasers with comparative information about health system performance. Although several measurement systems are used routinely to assess ambulatory, hospital, and long-term care, a systematic assessment of quality across spectrums of care is lacking. Spurred by rising costs and lagging quality improvement, large purchasers, health plans, and others have developed and implemented a variety of approaches that seek to reward high performance and create incentives for quality improvement. Efforts to improve and increase care measurement and align the incentives of providers through pay-for-performance programs are important building blocks in developing a health care system that performs more effectively and efficiently. Federal leadership is important to provide consistency to measurement and incentive systems so that the nation can gain the full value of these tools.

This report was prepared for the Commonwealth Fund/Alliance for Health Reform 2006 Bipartisan Congressional Health Policy Conference.

Support for this research was provided by The Commonwealth Fund. The views presented here are those of the author and not necessarily those of The Commonwealth Fund or its directors, officers, or staff, or of The Commonwealth Fund Commission on a High Performance Health System or its members. This and other Fund publications are online at www.cmwf.org. To learn more about new publications when they become available, visit the Fund's Web site and register to receive e-mail alerts. Commonwealth Fund pub. no. 912.

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Editorial support was provided by Martha Hostetter and Deborah Lorber.

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"Quality means doing it right when no one is looking."—*Henry Ford*

"Quality health care means doing the right thing, at the right time, in the right way, for the right person, every time."—*U.S. Agency for Healthcare Research and Quality*

INTRODUCTION

In its landmark 2001 report, *Crossing the Quality Chasm: A New Health System for the 21st Century,* the Institute of Medicine (IOM) declared the U.S. health care system to be in need of fundamental change. "Between the health care we have and the care we could have lies not just a gap, but a chasm," the IOM said. What is needed, the IOM concluded, is a series of actions that, taken together, will create "an environment that fosters and rewards improvement." The IOM said that the U.S. health care system should be improved by making care "safe, effective, patient-centered, timely, efficient, and equitable."[1]

The evidence of quality shortcomings is substantial and growing.[2] The following are a few examples:

- The National Committee for Quality Assurance (NCQA) has estimated that nearly 80,000 Americans die each year because they do not receive evidence-based care for such conditions as high blood pressure, diabetes, and heart disease.[3]

- Researchers from the RAND Corporation have found that, on average, Americans receive the care indicated by medical evidence as necessary only 55 percent of the time.[4] Most of these results reflect underuse of necessary care that can lead to needless complications, adding to health care costs and reducing productivity. Some results reflect overuse of unnecessary care that increases costs directly, and if complications occur, can further increase costs and threaten the health of patients.[5]

- A 1999 IOM report estimated that as many as 98,000 Americans die each year as a result of avoidable patient safety errors, while the Centers for Disease Control and Prevention has estimated that 90,000 Americans die each year due to hospital-based infections.[6] These reflect misuse, another quality problem that leads to preventable deaths and injuries.

- There also are examples of enormous variation in delivery of care—nationally, regionally, and locally. A report to Congress by the Agency for Healthcare Research and Quality (AHRQ) found that the proportion of elderly patients with pneumonia who received recommended pneumococcal screenings or vaccinations in the highest-performing state was 7.5 times higher than in the lowest-performing state.[7] Researchers at Dartmouth University have shown that Medicare expenditures in Los Angeles were twice as high compared with Sacramento for care given to persons in the last two years of their lives.[8] These results indicate that care for these Medicare beneficiaries was not based on standardized or evidence-based guidelines. Similarly, a recent analysis of data from the Hospital Quality Alliance (HQA), the first initiative to report routinely on hospital performance, showed that the quality of hospital care varies widely, not only by geographic region and hospital type, but also across conditions within individual hospitals.[9]

There is a growing belief that current payment systems not only fail to reward or encourage quality and quality improvement but sometimes actually penalize them. Many payment systems pay for each service rendered on a fee-for-service basis. As a result, if a hospital, physician, or other provider performs fewer or less intensive services by following evidence-based guidelines, the organization or provider receives less money. As the IOM stated in its *Quality Chasm* report, policymakers must align payment incentives with the drive to improve quality.

To cope with rising costs, employers have shifted more of the cost of insurance to employees and their families and asked them to take a greater role in decisions about their care. This model of consumer-directed health care aims to give patients incentives to make informed decisions and choose necessary, cost-effective care. However, this model assumes that consumers will have sufficient information about the quality, performance, and costs of hospitals, doctors, health plans, and others that deliver care. Consumers report that they do not generally have this kind of information available to them.[10]

Policymakers, purchasers, and the public are struggling with the high cost of care and looking for value. They ask: What are we buying with the billions of dollars we are spending for care? Are we receiving the best care money can buy? Could we buy the same care for less, or possibly even better care for the same or less money? Addressing these questions will require an examination of our ability to 1) measure the care delivered in the United States and 2) devise an incentive system that rewards higher-quality, more efficient care.

MEASURING QUALITY

Our ability to measure and report on the quality of care has advanced a great deal in the past 20 years. Much early work focused on the measurement of ambulatory care delivered through health maintenance organizations, while more recent efforts center on hospitals, physicians, and other providers.

There are three major components of quality—structure, process, and outcome—and each has associated quality measures:

- **Structural measures** consider whether the right structures, including policies, are in place to ensure the delivery of high-quality care. Typical structural measures include requirements imposed by states or the federal government for health plans, hospitals, and nursing homes, such as the physical plant, management systems, or staffing ratios.

- **Process measures** examine whether the right steps are being taken to deliver high-quality care. These steps generally are based on evidence. The set of measures collected by the Centers for Medicare and Medicaid Services (CMS) through the HQA includes indicators such as the administration of aspirin within an hour of an admission for a heart attack. Another set—the Health Plan Employer Data and Information Set (HEDIS)—is used to assess the performance of health plans.[11] While process measures can determine whether evidence-based medicine was delivered, they do not always indicate whether the health of the patient improved.

- **Outcome measures** seek to determine whether the right results are achieved, given our current knowledge. A typical example is whether a patient is readmitted to the hospital within 30 days of discharge. These measures are generally available from administrative claims data. Other sets of outcomes measure patients' functional status. The Minimum Data Set–Post-Acute Care (MDS-PAC) is routinely collected by CMS from nursing facilities, and the Medicare Health Outcomes Survey is used to assess the physical functioning and mental well-being of health plan enrollees over time.[12] Another aspect of outcomes is consumer experience and satisfaction. The Consumer Assessment of Healthcare Providers and Systems (CAHPS), developed by AHRQ, is used to assess health plan enrollees' experience with their care, and similar surveys are planned for fee-for-service patients. Based on the success of CAHPS, AHRQ and others have developed additional consumer surveys focused on ambulatory care and inpatient hospital care that will be launched sometime in 2006.

Although several measurement systems are used routinely (e.g., HEDIS, HQA, and MDS-PAC) to assess various aspects of ambulatory, hospital, and long-term care, a systematic assessment of quality across spectrums of care is still lacking. For example, there are no routine measurement systems that collect and report data on most of the recommended care items included in the RAND study. Furthermore, although nearly half of the states now require reporting of patient safety problems (errors and near-misses) and a new federal law will encourage greater reporting of such information, there is no ongoing national measurement of deaths attributable to medical error, making it hard to assess whether patient safety efforts are effective.[13] Hampered by the lack of information and quantitative goals, progress in patient safety since the publication of the IOM's *To Err Is Human* report in 2000 has been slow.[14]

USING MEASUREMENT TO IMPROVE QUALITY

Quality measures are used for a variety of purposes. These include identifying areas of performance that merit improvement; monitoring improvement; and providing comparative information to assess performance so that consumers and purchasers can make better choices.

At present, only a minority of physicians use data about their own practices to improve their care.[15] This, however, will change. "Evidence of evaluation of performance in practice, including the medical care provided for common/major medical problems (e.g., asthma, diabetes, heart disease, hernia, hip surgery) and physician behaviors, such as communication and professionalism, as they relate to patient care" is a major component of the board certification process for specialty physicians, as coordinated by the American Board of Medical Specialties (ABMS).[16]

Data from sources such as HEDIS and HQA are used by health care organizations to identify areas for improvement and investment. Group purchasers of health care—including employers and public programs such as Medicare and Medicaid—use the information to guide contracting decisions and inform consumers of the comparative strengths and weaknesses of organizations or individual providers. For example, Medicare now posts information on a special Web site to help beneficiaries and their families choose hospitals, nursing homes, home health agencies, or health plans.[17]

Public reporting also can be an incentive for improvement. This has been well tested among health plans. NCQA has collected HEDIS data from health plans for more than a decade. Improvement among the plans that permit public reporting of their data has been significantly higher than among those who do not.[18] Similarly, group practices that

have participated in public reporting of their performance, either voluntarily or involuntarily, tend to have higher performance than groups that have not done so.[19]

CREATING NEW INCENTIVES FOR QUALITY

Spurred by rising health care costs and lagging quality improvement, large purchasers, health plans, and others have developed, tested, and implemented a variety of approaches that seek to reward high performance and create incentives for quality improvement. CMS has taken a series of actions, many with roots in the Medicare Modernization Act of 2003, to test and implement quality incentives for providers participating in Medicare. A major focus of these efforts has been the development of payment incentives and rewards that have been loosely gathered under the umbrella term "pay for performance" (P4P). While P4P is still a relatively new phenomenon, it appears to have potential in the health care sector, where reimbursement has traditionally been based solely on utilization of services and patients often cannot discern quality.[20]

Much of the momentum for P4P has come from the private sector. A recent annual survey identified a total of 104 P4P programs around the country in 2004 and predicted that the number would grow to 160 by the end of 2005.[21] One of the more notable P4P efforts is Bridges to Excellence (BTE), a nonprofit, employer-driven initiative organized to advance health care quality through programs that recognize providers who make changes that achieve better outcomes.[22] BTE focuses on diabetes care, cardiovascular care, and patient self-management systems. In addition, participating physicians are highlighted in provider directories, helping employees and their families identify doctors who are best suited for treating particular illnesses or who have exemplary office systems for tracking care. BTE is currently operating in Cincinnati, Louisville, Boston, and Albany and has plans to launch new programs in Phoenix, Houston, and Omaha.[23]

In California, the Integrated Healthcare Association (IHA), which has initiated collaboration among seven health plans and 215 medical groups and independent practice associations, has launched a P4P program. The collaborating parties have agreed to a common set of measures in three domains: technical aspects of medical care; patient experience and satisfaction; and adoption and use of information technology by practitioners. Rewards, determined independently by each insurer, are based on performance in each of the three domains. Currently, 35,000 California doctors—responsible for 6.2 million patients per year—are involved in the program. In 2005, IHA expects to pay out an estimated $80 million to the 215 medical groups.[24]

Many individual health plans have launched P4P programs—mostly aimed at physicians—with incentives ranging from dollar rewards to inclusion in "high-performance networks." In the latter instance, members of health plans can be encouraged to use physicians who have demonstrated excellent clinical performance and low cost, which, in turn, can increase the market share and profitability of physicians' practices.

The Leapfrog Hospital Rewards Program is a P4P program that rewards hospital performance. Employers and health plans involved in the Leapfrog effort offer public recognition and a variety of bonus payments to hospitals that report data on five clinical areas (coronary artery bypass graft, percutaneous coronary intervention, acute myocardial infarction, community acquired pneumonia, and deliveries/neonatal care) that represent 20 percent of commercial inpatient spending and 33 percent of commercial admissions.[25]

Rewarding Results is an $8.8 million initiative of the Robert Wood Johnson Foundation and the California HealthCare Foundation, aimed at improving quality by aligning incentives with high-quality care. Rewarding Results provides grants and technical assistance to employers, health plans, state Medicaid and State Children's Health Insurance Program agencies, and other select purchasers to design, implement, and evaluate payment programs and non-financial incentives to reward physicians and hospitals for higher quality.

The Institute for Healthcare Improvement has launched the 100,000 Lives Campaign, which aims to enlist thousands of hospitals across the country to implement changes in care that have been proven to prevent avoidable deaths.[26] It started with a focus on the following six changes:

- use of "rapid response teams" at the first sign of patient decline;
- delivery of reliable, evidence-based care for heart attack patients;
- prevention of adverse drug events;
- prevention of central line infections;
- prevention of surgical site infections; and
- prevention of ventilator-associated pneumonia.

WILL IT WORK?

Despite the tremendous interest in P4P as a mechanism to tackle the significant health care quality gaps in the United States, there is scant evidence of its long-term, or even short-term, effectiveness, in terms of quality improvement or cost-savings.[27] Most of the private

sector programs are scarcely a few years old and only recently have begun paying any significant rewards.[28]

One important question that has surfaced is whether payment incentives lead to actual improvement or simply reward already high-performing providers. A January 2004 analysis of P4P programs found that despite impediments to success, "well-crafted payment-for-performance initiatives are worth pursuing and may lead to substantial improvement in the quality of care."[29] An October 2005 report noted that most P4P programs "are in the early stages of trial, evaluation, and adjustment."[30] The latter study, which examined a PacifiCare P4P program that began in 2002, found quality of care improved in all three targeted areas, with statistically greater improvements for cervical cancer screening among California medical groups that received bonuses than the medical groups in Oregon and Washington that did not. The incentive in this program was relatively modest. Physicians with the lowest performance initially improved the least. Those who started at the top showed limited improvement but reaped most of the financial rewards.

In contrast, a new U.K. general practitioner (GP) contract, which became operative in April 2004, launched a P4P program with a very large incentive. British GPs who were willing to be evaluated on 146 performance categories were also eligible for receiving a bonus of up to 25 percent.[31] The first year's results, reported in August 2005, showed that almost all GPs in England participated and the average practice score was 91 percent of the maximum.

PUBLIC SECTOR INVOLVEMENT

The initial successes of private sector P4P programs in the United States have stirred interest in the concept in Congress and the Bush Administration. The Medicare overhaul legislation included several provisions aimed at expanding quality reporting and adopting a P4P approach. Among these are:

- **Voluntary Hospital Reporting.** Hospitals that agree to voluntarily report 10 quality measures to CMS are eligible for a full market basket update in their Medicare payment rates each year. Those that do not receive 0.4 percent less. Under the Deficit Reduction Act of 2006 (Public Law 109-171) the number of measures will increase and the penalty for failing to report will rise to 2 percent.
- **Hospital Quality Incentive Demonstration.** Separate from the voluntary reporting program, CMS is collecting data on 34 hospital quality measures and paying rewards to Premier hospitals that score well.[32] Hospitals scoring in the top

10 percent for a given set of quality measures will receive a 2 percent bonus payment on top of the standard diagnosis related group (DRG) payment for the relevant discharges. Those scoring in the next-highest 10 percent will receive a 1 percent bonus. In the third year of the demonstration, those hospitals that do not meet a predetermined threshold score will be subject to reductions in payment. In November 2005, CMS awarded $8.85 million to hospitals that showed measurable improvements in care during the first year of the program.

- **Doctors' Office Quality (DOQ).** A one-year pilot program launched in California, Iowa, and New York aimed at collecting quality data from physicians through Quality Improvement Organizations (QIOs).
- **Doctors' Office Quality – Information Technology (DOQ-IT).** This program emphasized the electronic collection of quality measures from physicians through QIOs. There were four original pilot states—Arkansas, California, Massachusetts, and Utah—and the program has now spread in various forms to other states. The Medicare Care Management Performance demonstration mandated by the Medicare Modernization Act will essentially build a Bridges to Excellence–like P4P mechanism around the DOQ-IT project in the four DOQ-IT pilot states.
- **Physician Group Practice Demonstration.** This project seeks to encourage physician groups to coordinate their care to chronically ill beneficiaries, give incentives to groups that slow the rate of growth of Medicare outlays and promote active use of utilization and clinical data to improve efficiency and patient outcomes. In January 2005, CMS announced that 10 large practices around the United States will participate in this program. The projects focus on common chronic illnesses in the Medicare population including congestive heart failure, coronary artery disease, diabetes, and hypertension, as well as preventive services such as influenza and pneumonia vaccines and breast cancer and colorectal cancer screenings.
- **Medicare Healthcare Quality Demonstration.** This program will test models of improvement in integrated health systems and area-wide coalitions of providers and will use broad authority to develop financing approaches consistent with those models. CMS is currently considering the first wave of applicants for this project.

In addition to the changes to Medicare, Congress also asked the IOM to conduct two important studies.

- An evaluation of leading health care performance measures in the public and private sectors, and identification of options for aligning Medicare payment policies with provider performance in the original fee-for-service program and the Medicare Advantage program; and
- An evaluation of the quality improvement organization program.

IOM released the first of three reports on performance measurements in December 2005. The other two will be released in 2006. The first report found that, despite a decade of intense activity, progress continues to be slow, lessons learned are fragmented, and little effort is being devoted to evaluating the impact of improvement initiatives.[33]

The IOM recommended that Congress establish a National Quality Coordination Board with seven key functions:

- specify the purpose and aims for American health care;
- establish short- and long-term national goals for improving the health care system;
- designate or, if necessary, develop standardized performance measures for evaluating the performance of current providers, and monitor the nation's progress toward these goals;
- ensure the creation of data collection, validation, and aggregation processes;
- establish public reporting methods responsive to the needs of all stakeholders;
- identify and fund a research agenda for the development of new measures to address gaps in performance measurement; and
- evaluate the impact of performance measurement on P4P, quality improvement, public reporting, and other policy levers.

IOM also recommended that Medicare institute P4P programs for hospitals and physicians and laid out a "starter set" of measures that should be used for both.

LEGISLATIVE INTEREST GROWS

Leading members of Congress also have taken an interest in P4P. In the 109th Congress, two major bills have been introduced. Senate Finance Committee Chairman Charles Grassley (R-Iowa) and Ranking Minority Member Max Baucus (D-Mont.) have introduced the "Medicare Value Based Purchasing Act of 2005" (S. 1356), which would add a new Part E to Medicare under which the Secretary of Health and Human Services (HHS) would develop measurement systems to provide value-based payments to hospitals,

physicians, and practitioners; health plans; end-stage renal disease providers and facilities; and home health agencies. The Grassley-Baucus bill would provide rewards to those that reach or exceed a performance threshold established by the HHS Secretary and to those that substantially improve their performance from one year to the next. In most cases, the rewards would be paid out of funds withheld from the annual updates in Medicare rates for each type of provider.

In the House, Rep. Nancy Johnson (R-Conn.) has introduced the "Medicare Value-Based Purchasing for Physicians' Services Act of 2005" (H.R. 3617), which would direct HHS to create a P4P program for Medicare physicians and would replace the current physician payment formula. As part of her legislation, Johnson also would replace the current formula used to determine the annual update in Medicare physician fees.

Lawmakers had hoped to take several major steps forward on Medicare value-based purchasing, as part of the Deficit Reduction Act of 2005. The Senate attached most of the Grassley-Baucus bill to its version of the budget reconciliation legislation. The conference agreement, however, contained relatively small steps:

- **Hospital reporting.** As noted earlier, HHS is directed to add new measures—as recommended by the IOM—to the 10 currently reported by hospitals. Medicare is required to make those data available to the public on the CMS Web site. The HHS Secretary is directed to develop a value-based purchasing plan for hospitals by fiscal year 2009 and to ask MedPAC to develop proposals for the Secretary in 2007.
- **Hospital-acquired infections.** The legislation made changes in Medicare's DRG-based payments to prevent hospitals from being paid more for patients who acquire an infection after they are admitted. The Secretary of Health and Human Services will identify the DRG codes that are covered by this new law.
- **Home health care.** Home health agencies that voluntarily report certain quality measures will be paid 2 percent more than those that do not.
- **Gainsharing.** HHS will be permitted to test whether Medicare should allow hospitals and physicians to share some of the savings resulting from delivery of less-expensive, higher-quality care.

THE BALL IS IN CMS' COURT

Congress's decisions put the value-based purchasing ball back squarely in CMS's court. In October, CMS Administrator Mark McClellan, M.D., Ph.D., announced a new voluntary

physician quality reporting program. Under the program, physicians who choose to participate will help capture data about the quality of care provided to Medicare beneficiaries, in order to identify the most effective ways to use the quality measures in routine practice and to support physicians in their efforts to improve quality of care. Voluntary reporting of quality data began in January 2006.[34]

Efforts to improve and increase care measurement and align the incentives of providers through P4P programs are important building blocks in developing a health care system that performs more effectively and efficiently. Providers of care are concerned about the proliferation of multiple competing measurement systems and multiple P4P programs with different incentives. Federal leadership is important to provide consistency to measurement and incentive systems so that the country can gain the full value of these tools.

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