

# The Measurement of Health Care Performance

## A Primer from the CMSS

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# Physician Practice Measurement and Quality Improvement Primer

## Introduction

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Over the past decade the issues of patient safety, quality improvement, outcome measures, practice measurement, efficiency, effectiveness, and the integrity and validity of physician performance have been widely discussed within and without medicine. The purpose of this primer is to create a common background of terminology, approaches, and rationale regarding physician practice measurement and quality improvement. The hope and expectation is that this will be of help to specialty societies, physician groups, and individual physicians in understanding the maze of rhetoric, as well as the rationale, for commitment to work in this area.

The rest of the document will include definitions, approaches, and even the “how to” for involvement of the physician community. As we approach any area that is new, controversial, and complex, we must remind ourselves why we should expend the time, energy, and money necessary to address quality measurement-- basically we need to understand why quality measurement is important to physicians and their patients.

There are many, including those outside of medicine, who are clamoring for improvement in patient safety and who are demanding an explicit measurement of individual and system quality measures. This includes the public, payers, and certainly the government. Considerable emphasis on individual physician performance is being created by the Maintenance of Certification movement, as well as Maintenance of Licensure. The accreditors, certifiers, and educators are all emphasizing quality measurement. At the same time physicians are concerned about any measurement of cost without accompanying quality of care measures. Therefore, there are tremendous pressures and expectations to accurately measure individual physician (or a system of care) performance.

There is, however and most importantly, the perspective of the profession, which drives us in the same direction and should (and eventually must be) the primary compelling force in medicine's commitment to quality measurement and performance assessment. In the document “Medical Professionalism in the New Millennium: A Physician Charter” (created by internal medicine and adopted by numerous medical specialties both in the United States and around the world) the statement is made that “professionalism is the basis of medicine's contract with society.” The document contains three fundamental principles and ten professional responsibilities which describe the contract with society by physicians.

The fundamental principles are: 1) primacy of patient welfare; 2) patient autonomy; and 3) social justice and they are self-explanatory. The ten professional responsibilities all touch on aspects of quality of care, with five specifically addressing the responsibility of physicians to deal with quality of care. These are commitment to: professional competence; quality of care; access of care; scientific knowledge; and professional responsibilities (Other commitments are to: honesty with patients; patient confidentiality; appropriate relations with patients; just distribution of finite resources; and maintaining trust by managing conflicts of interest).

In addition to the inherent drive of individual professionalism, specialty societies must also commit to evaluate individual physician practice and efficiency, as it is in the best interest of their members to clearly establish quality measures within their specialty. The public expects it, the payers and the government are demanding it, and so it is natural for an organization to step up to provide these measures. If they do not show leadership, those less competent will.

Some pushback by individual physicians is inevitable given ambivalence about the process and even paranoia about the external pressures which have been created in this movement. This combined with an uncertainty of the process and a concern of being evaluated does lead to some resistance. Yet, the vast majority of physicians sense the responsibility of professionalism and realize the need to assure the public trust. They desire that it be done properly, and deep-down sense that it is both necessary and appropriate.

As some have said, the train has left the station. It is critical that we assure that the proper track is laid and that the direction of the train be appropriate for the sake of patients and their physicians.



# The Measurement of Health Care Performance

## A Primer for Physicians

*This paper was developed by Katherine E. Garrett for the Council of Medical Specialty Societies with the support of a grant from the United Health Foundation. It is intended to be a “quick reference” guide to this multifaceted arena, and to support the ongoing work of Medical Specialty Societies to advance quality and continuous professional development.*

*It is the purpose of this order to ensure that health care programs administered or sponsored by the Federal Government promote quality and efficient delivery of health care through the use of health information technology, transparency regarding health care quality and price, and better incentives for program beneficiaries, enrollees, and providers.*

Executive Order of the President , August 26, 2006

*“People deserve to know what their health care costs, how good it is, and the choices available to them.”*

Department of Health and Human Services  
Secretary Michael O. Leavitt,  
commenting on the Executive Order

President George W. Bush's executive order of last summer is one manifestation – albeit an influential one – of the movement in health care in the United States towards measuring and communicating information about the quality and value of health care services. All parts of the health care delivery system: institutional providers like hospitals and long-term care facilities, organizers of care like health maintenance organizations, and, most recently physicians, are finding themselves the subject of measurement sets, report cards and the probability that payment for health care services will be tied to some measure of performance.

The purpose of this paper is to provide leaders of professional societies and practicing clinicians with:

1. Definitions of key terms.
2. A summary of the major developments in research and policy that have led to the current focus on performance measurement.
3. Descriptions of the major players in performance measurement, their roles and the results of their work.
4. Explanations of measurement methodologies.
5. The outlook for performance measurement.
6. Suggestions for supporting the valid and effective use of performance measurement.

With this information, physicians and specialty societies will be better prepared to take their necessary place in the ongoing development of this environment of “transparency regarding health care quality and price.”

# 1. Key terms

Any discussion of physician performance measurement presumes a basic understanding of a few important terms:

- **Quality.** The most important term, and for many the most difficult to define precisely. After much study and debate, the Institute of Medicine (IOM) in 1990 published a landmark report providing the health care delivery system with this now widely-accepted definition of health care quality:

“The degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”<sup>1</sup>

- **Value** is also a challenging term to define, but the multi-stakeholder AQA Alliance (see below) defines “Value of Care” as: a measure of specified stakeholder’s (such as an individual patient’s, consumer organization’s, payor’s, provider’s, government’s, or society’s) **preference-weighted assessment** of a particular combination of **quality** and **cost of care** performance”<sup>2</sup> The ability to assess value requires a mechanism for measuring both quality and cost.
- **Performance measurement**, therefore, is this mechanism. The Institute of Medicine recently called for “a coherent, robust, integrated performance measurement system that is purposeful, comprehensive, efficient, and transparent.”<sup>3</sup> The American health care system is lurching towards the development of such a system: this paper will describe some of its components.
- **Transparency** is the belief that providing information about quality or value will be useful to both providers and consumers of health care services. Patients and their families have the right to the information that will help them make informed choices about health care services. If relative value information is made available to health care purchasers, the expectation is that they will make more informed decisions and may perhaps reward higher value providers of care with their business. In this way, the market will drive the provision of higher-value health care.
- **Pay for Performance** means enhancing or reducing payments through fee schedules, bonuses or other incentives, based on performance on certain measures of quality and value.
- **Efficiency** is the use of resources to get the best value. For the Institute of Medicine, “the opposite of efficiency is waste.”<sup>4</sup>

The use of the term “efficiency” makes many physicians and policy makers uncomfortable in its implication of the need to cut back on health care services. Others focus instead on the potential for making more resources available for health care by reducing the waste in the system.

The AQA Alliance (see p. 7), in order to clarify the place of efficiency in health care quality measurement, has defined “efficiency of care” as “a measure of cost of care associated with a specified level of quality of care.”<sup>5</sup> In this way, the Alliance has stressed that efficiency and quality cannot be separated, nor one achieved at the expense of the other.

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1 Institute of Medicine, Medicare: A Strategy for Quality Assurance, ed. Lohr K. Vol. 2. 1990, Washington, DC: National Academy Press.

2 AQA Principles of “Efficiency” Measures April 2006. Available from: <http://www.aqaalliance.org/performancewg.htm>

3 Institute of Medicine, Performance Measurement: Accelerating Improvement, Board on Health Care Services, 2006, Washington D.C., National Academy Press, p. 3.

4 Institute of Medicine, Crossing the Quality Chasm, a New Health System for the 21st Century, Committee on Quality of Health Care in America. 2001, Washington, DC: National Academy Press, p.52.

5 AQA, Principles of Efficiency Measures, accessible at <http://www.aqaalliance.org/files/PrinciplesofEfficiencyMeasurementApril2006.doc>

- **Information Technology** is a collective noun for the tools used to support performance measurement and/or quality improvement. Capturing and processing information from and about huge numbers of providers and patients is impossible without modern information technology.
- **Continuous Professional Development** is the term used by Medical Societies and Certifying Boards that denotes the need for lifelong learning and demonstrated improvement in practice. There is a potentially important linkage between Performance Measurement and Continuous Professional Development using feedback on actual performance.

## 2. Background to the current focus on performance measurement

Research shows variation, error, inequity and lack of recommended care:

In the past few years, research has begun to reveal the nature and extent of variation in the quality of health care provided in the United States. To cite only a few of the best-known examples:

- In 2003, researchers from the Rand Corporation found that participants in a broad study of a representative sample of the American population received only 54.9% of the care recommended for their age, gender and condition.<sup>6</sup>
- In 2002, John Wennberg and his colleagues showed wide variation in Medicare spending by geographic region, largely due to variation in the use of what they termed “supply-sensitive services,” especially for those with chronic illness or at the end of life.<sup>7</sup>
- The Committee on the Quality of Health Care in America of the Institute of Medicine, in its 2000 report *To Err is Human: Building a Safer Health System*, found significant morbidity and mortality resulting from preventable medical error.<sup>8</sup> In 2001, the Committee followed up this work with *Crossing the Quality Chasm, a New Health System for the 21st Century*, which identified a fundamental need for a new approach in health care, one that focuses more directly on providing safe, effective, patient-centered, timely, efficient and equitable care.<sup>9</sup>
- In a follow-up report published in 2003, the Institute of Medicine’s Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care found that racial and ethnic minorities “tend to receive a lower quality of health care than whites do, even when access-related factors, such as patients’ insurance status and income, are controlled.”<sup>10</sup> The Committee also found that these differences in care contribute to higher death rates for minorities.<sup>11</sup>

These quality-related issues come at a high cost:

- Health spending per capita in the U.S. grew at an average annual rate of 4.4% from 1980-2003, the second-highest rate among countries in the Organization for Economic Cooperation and Development (OECD).<sup>12</sup>

6 McGlynn EA, Asch SM, Adams J, et al., The Quality of Health Care Delivered to Adults in the United States. *N Engl J Med*, 2003. 348(26): p. 2635-45.

7 Wennberg JE, Fisher ES, and Skinner JS, Geography and the Debate over Medicare Reform. *Health Affairs*, 2002. Supp Web Exclusives: p. W96-114.

8 The Institute of Medicine, *To Err is Human: Building a Safer Health System*, Committee on Quality of Health Care in America. 2000, Washington, DC: National Academy Press.

9 Institute of Medicine, *Crossing the Quality Chasm, a New Health System for the 21st Century*, Committee on Quality of Health Care in America. 2001, Washington, DC: National Academy Press.

10 The Institute of Medicine, *Unequal Treatment, Confronting Racial and Ethnic Disparities in Health Care*. Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. 2003, Washington D.C.: National Academy Press, p. 1

11 <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=10260>

12 Kaiser Family Foundation, *Health Care Spending in the United States and OECD Countries*, 2007. Accessible at <http://www.kff.org/insurance/snapshot/chcm010307oth.cfm>

- U.S. citizens' health spending per capita in 2002 was 53% more than any other country.<sup>13</sup>
- There is no evidence that these higher expenditures lead to higher quality care<sup>14</sup> In fact, **The Commonwealth Fund** has found that “the U.S. is one-third worse than the best country on mortality from conditions ‘amenable to health care’—that is, deaths that could have been prevented with timely and effective care.”<sup>15</sup>

And these costs are ever-increasing:

- Although the rate of increase is slowing, health expenditures were expected to grow in the United States by 7.4 percent in 2005, and to grow more quickly than the Gross Domestic Product overall over the next ten years. By 2015, researchers expect health care spending will account for 20 percent of the GDP.<sup>16</sup> Given this rate of cost escalation and the robust data on variations in care, it is highly probable, if not inevitable, that greater attention to performance assessment and transparency will be a feature of the US health care system for the foreseeable future.

### ***Transparency as part of the solution***

In their article on the health care delivery system's failure to provide recommended care, Dr. McGlynn and her Rand Corporation colleagues concluded: “The deficits we have identified in adherence to recommended processes for basic care pose serious threats to the health of the American public. Strategies to reduce these deficits in care are warranted.”<sup>17</sup>

Some policy-makers and others involved in the health care delivery system believe that the most important of these strategies should be the widespread dissemination of information about the performance of different health care providers. Their expectation, although to date unproven, is that improvement will surely follow such transparency, as consumers will seek out the providers of higher quality care.

In addition, The Commonwealth Fund, in its January, 2007 report *Slowing the Growth of U.S. Health Care Expenditures: What are the Options?*, includes “increasing the effectiveness of markets with better information and greater competition” as one of six strategies “that have the potential to achieve savings, slow spending growth, and improve health system performance.”<sup>18</sup> With the current focus in American government on market-driven solutions, making the imperfect health care market more perfect through initiatives that support transparency has become the favored policy initiative.

In fact, the jury is still out on the effectiveness of the strategy of public reporting of performance data and pay-for-performance initiatives. Discussion of the topic at a major health care conference in Washington, D.C. in April, 2007, ranged across the spectrum of opinion. But one comment, a Health Affairs reporter noted on her blog of the conference, did generate applause from the audience: the Center for Medicaid and Medicare Service's acting deputy director Herb Kuhn's conclusion that “Because it's hard doesn't mean it's not worth doing.”<sup>19</sup>

13 Anderson, Gerald F. et. Health Spending in the United States and the Rest of the Industrialized World, *Health Affairs*, 24, 4 (2005) 903-914.

14 Hussey, Peter F. et. at., How does the Quality of Care Compare in Five Countries? *Health Affairs*, 23,2 (2004) 89-99.

15 The Commonwealth Fund Commission on a High Performance Health System, *Why Not the Best? Results from a National Scorecard on U.S. Health System Performance* (New York: The Commonwealth Fund, Sept. 2006).

16 C. Borger et al., “Health Spending Projections Through 2015: Changes on the Horizon,” *Health Affairs Web Exclusive* (Feb. 22, 2006):w61–w73.

17 McGlynn, op. cit., p. 2635.

18 K. Davis, C. Schoen, S. Guterman, T. Shih, S. C. Schoenbaum, and I. Weinbaum, *Slowing the Growth of U.S. Health Care Expenditures: What Are the Options?*, The Commonwealth Fund, January 2007

19 <http://healthaffairs.org/blog/2007/04/24/quality-payment-debates-at-the-world-health-care-congress/?source=promo>



### 3. The major players

Who are the stakeholders in performance measurement? They range from policy-makers and purchasers to provider groups, insurers, and researchers. Increasingly, most of the work around performance measurement is done under the auspices of coalitions and alliances of providers, government entities and purchasers.

The key organizations are:

For the government:

- **The Center for Medicare and Medicaid Services (CMS)**, the branch of the federal government (in the Department of Health and Human Services) that sets policy, as the payer, for the Medicare and Medicaid programs.
- **The Agency for Healthcare Research and Quality (AHRQ)**, also part of the Department of Health and Human Services. AHRQ is the research arm, developing the science of performance measurement.
- **The Medicare Payment Advisory Commission (MedPAC)**, a 17-member independent commission established as part of Congressional legislation in 1997 that specifically advises Congress on the Medicare program, including the quality of care provided under Medicare. MedPAC's June, 2006 *Report to the Congress: Increasing the Value of Medicare* called for increased provider accountability to be achieved through increased measurement of "physician resource use."<sup>20</sup>
- **The United States Government Accountability Office (GAO)**, was directed to look at the compensation of physicians in the fee-for-service Medicare program as part of the Medicare modernization legislation passed in 2003. The GAO's April, 2007 report *Medicare: Focus on Physician Practice Patterns Can Lead to Greater Program Efficiency*, calls for physician performance measurement with the results being used "to improve the efficiency of care financed by Medicare."<sup>21</sup>
- **State Medicaid agencies**. Although Medicaid is partially financed by the federal government, each state designs, manages and partially finances its own program. Many states have instituted some sort of pay-for-performance component for their Medicaid services (see below).
- **State programs that publicly report health quality data**. As of 2005, 11 states had some sort of governmental requirement to report hospital quality information to the public.<sup>22</sup> Some of these reports (most notably New York State's report on mortality in cardiac surgery, described below in more detail) contain physician-specific information.

In a public-private partnership:

- **The National Quality Forum (NQF)**, established on the recommendation of a Presidential Advisory Commission. The NQF is a private, not-for-profit, public benefit corporation with a wide membership from throughout the health care delivery system. Its main work is to endorse quality measures and practices; any indicator endorsed by the NQF has been reviewed, discussed, vetted and voted upon by literally hundreds of health care stakeholders.

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20 Medicare Payment Advisory Commission, Report to the Congress: *Increasing the Value of Medicare*, June, 2006, p. xvi. Accessible via [www.medpac.gov](http://www.medpac.gov).

21 [www.gao.gov/cgi-bin/getrpt?GAO-07-307](http://www.gao.gov/cgi-bin/getrpt?GAO-07-307)

22 California, Connecticut, Maryland, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, Texas, Virginia and Vermont. Source: the Delmarva Foundation's July, 2005 report *The State-of-the-Art of Online Hospital Reporting: A Review of Fifty-One Websites*, accessible at: [http://www.delmarvafoundation.org/newsAndPublications/pressReleases/2005/08\\_18\\_05.pdf](http://www.delmarvafoundation.org/newsAndPublications/pressReleases/2005/08_18_05.pdf)

Independent accrediting bodies:

- **The Joint Commission** accredits about 15,000 health care organizations and programs in the United States, focusing on hospitals and free-standing facilities. Since 1997, the Joint Commission has been working to incorporate performance data into its accreditation process.
- **The National Committee for Quality Assurance (NCQA)**, which accredits health plans and also manages the HEDIS® set of measures of health plan performance, supporting the collection and reporting of HEDIS® performance data and the development and testing of new health care quality measures. NCQA has also developed a series of programs related to physician performance.

Collaborations and alliances:

- **AQA Alliance (AQA)**. AQA is the leading body working on the development and use of measures of physician care for the purpose of creating an “industry standard” approach to performance assessment. Founded by the American Academy of Family Physicians, the American College of Physicians, America’s Health Insurance Plans and AHRQ, the Alliance has over 150 members (including most organized medical societies) and focuses on (a) providing physicians with information to help them improve care and (b) rationalizing and regularizing the performance measurement system.

AQA has three workgroups:

- ▶ Performance measurement
- ▶ Data sharing and aggregation
- ▶ Reporting

Each has wide membership. In 2006, AQA issued its **Parameters for Selecting Measures of Physician Performance**. The fourteen parameters call for the use of measures that:

- ▶ Have been endorsed by the NQF.
- ▶ Support the IOM's six aims for the improvement of health care.
- ▶ Complement measures of hospital care and care in other health settings.
- ▶ Reflect the spectrum of health care.
- ▶ Can be implemented in a way that is not burdensome to providers.

- **Hospital Quality Alliance (HQA)**. Subtitled “Improving Care Through Information,” HQA involves hospital, medical and nursing associations, CMS, AHRQ, NQF, the Joint Commission, insurers, and business organizations in an initiative to measure and publicly report the quality of health care provided in U.S. hospitals.
- **The Quality Alliance Steering Committee (QASC)** is a joint venture of AQA and HQA that seeks to coordinate the work of both organizations.
- **Physician’s Consortium for Performance Improvement (PCPI)**. Convened by the American Medical Association (AMA), PCPI works to develop evidence-based measures of clinical performance. It also provides resources for physicians to use as they become familiar with performance measurement. Members of PCPI include state medical societies, national medical specialty societies, AHRQ, CMS, the American Board of Medical Specialties and the Council of Medical Specialty Societies.
- **The Leapfrog Group**. The Leapfrog Group is a membership organization made up of purchasers of health care services, primarily businesses and business coalitions that provide health benefits to their employees. Leapfrog’s focus is on safety, primarily in hospitals. The group has developed a set of patient safety standards, annually surveys hospitals on their compliance with these standards, and publishes this information on its Web site.

- **Other business alliances.** These operate on both the national and regional level, and are often referred to as “Business Groups on Health.” The **National Business Group on Health** is based in Washington D.C. and serves as an advocacy group for major employers around national health policy. Based in San Francisco, the **Pacific Business Group on Health** has long been a leader in the public reporting of health provider performance. Business groups are membership organizations: most members are major employers seeking to improve the value of the health services they purchase for their employees. They are active throughout the United States.
- **America’s Health Insurance Plans (AHIP)**, the advocacy group for private-sector insurers. AHIP is an NQF member. In April, 2007, AHIP proposed a “National Strategy to Improve Health Care Safety and Quality” through, among other actions, establishing a new national evaluative body for health technology, and increased accessibility of information about treatment options for patients and physicians.
- **Private Insurers**, who run a variety of performance assessment and/or incentive programs for physicians. Horizon Blue Cross Blue Shield of New Jersey, for example, has pay-for-performance programs (increased fees for the top 15 percent of performers) for physicians in 12 medical specialties.<sup>23</sup>

#### Representing Consumers:

- **AARP.** AARP has 38 million members to whom it offers a variety of health and health insurance products. In its role as a purchaser of health services, AARP stresses its interest in insuring health plan accountability through public performance reporting. In its role as a lobbyist, AARP conducts policy analysis of health care quality trends and pending legislation.
- **The National Partnership for Women and Families** is a national advocacy organization. With support from the **Robert Wood Johnson Foundation**, the Partnership leads a project – *Americans for Quality Health Care* – that seeks to build consumer demand for transparency and accountability in ambulatory and preventive care.

#### Supporting information technology:

- **The American Health Information Community (AHIC)**, managed by the Department of Health and Human Services as “a federal advisory body, chartered in 2005 to make recommendations to the Secretary of the U.S. Department of Health and Human Services on how to accelerate the development and adoption of health information technology.”<sup>24</sup> The Community manages workgroups that look at seven key applications of the integration of health and information technology: consumer empowerment; chronic care; confidentiality, privacy and security; electronic health records; quality; population health; and personalized health care. The Quality workgroup focuses specifically on the role of health information technology in the development of performance measures.
- **The Certification Commission for Healthcare Information Technology (CCHIT).** Formed in 2004 as a collaboration of the American Health Information Management Association, the Healthcare Information and Management Systems Society and The National Alliance for Health Information Technology, CCHIT is developing, for the Department of Health and Human Services, a certification program for electronic health records for both outpatient and inpatient care, and for the components through which they may share information.

<sup>23</sup> <http://www.aishealth.com/Bnow/051607b.html> Accessed June 13, 2007.

<sup>24</sup> <http://www.hhs.gov/healthit/community/background/>

## **Key results, so far, of their work**

The work of these different groups, as they both collaborate and work separately, has resulted in a number of initiatives related to physician performance measurement:

- CMS, representing the federal government and in response to the president's executive order referenced above, has developed an initiative for **Value-Driven Health Care**. The initiative serves as a coordinating entity for a range of Medicare-based performance measurement and reporting activities; CMS intends that it will also catalyze and convene private sector, other public sector, and public-private partnerships to accelerate the adoption of public performance reporting and pay-for-performance approaches to improving quality. The work of this initiative includes developing standards for health information technology, for quality, for pricing and for incentives for improvement.
- The **Better Quality Information (BQI) pilots** are part of the Value-Driven Health Care Initiative. In these pilots, CMS will work with six pre-existing coalitions of purchasers and providers of health care to publicly report measures of physician performance that are based on both Medicare claims and private data. CMS's intent is that combining information on Medicare and other patients will make the data on physician performance more robust, and that the information will lead to more physician improvement and informed consumer choice.<sup>25</sup> The pilots are taking place in California, Massachusetts, Indiana, Arizona, Minnesota and Wisconsin.
- **The Physician's Quality Reporting Initiative (PQRI)** was established by the Tax Relief and Health Care Act of 2006 and is managed by CMS. Under the PQRI, in CMS's words, "eligible professionals who successfully report a designated set of quality measures on claims for dates of service from July 1 to December 31, 2007, may earn a bonus payment, subject to a cap, of 1.5% of total allowed charges for covered Medicare physician fee schedule services." The initial data set will consist of 74 measures; for more information, visit [www.cms.hhs.gov/pqri/](http://www.cms.hhs.gov/pqri/).
  - ▶ The PQRI builds on a number of earlier Medicare pilots, including the **Physician Voluntary Reporting Program**, in which information on performance treating Medicare patients was reported back to physicians confidentially, but not made public, and the **Physician Group Practice Demonstration**, Medicare's first pay-for performance program. The Commonwealth Fund has reported on the results of the Physician Group Practice Demonstration<sup>26</sup>, see below.
- **Hospital Compare**, an initial result of HQA's work. Accessible at [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov), this Web site allows users to view and compare hospital performance in treating Medicare patients on a range of quality measures. Currently, measures of care for heart attack, heart failure, pneumonia, and for surgical care, are publicly available. Additional measure categories will be published beginning in June, 2007. The current measures are of processes of care, especially those that reflect effective coordination among physicians, nursing staff, ancillary services, pharmacy and other parts of a hospital.
- The NQF's voting draft of **National Voluntary Consensus Standards for Ambulatory and Hospital Care: Specialty Clinician Performance Measures**, sent to NQF members in April, 2007, as part of NQF's process for obtaining reaction to, and building consensus on, all the measures it endorses. NQF has been working since October, 2006 on this set of measures; those formally endorsed will be used to inform the PQRI and other specialty physician measurement efforts. Topics covered include eye care; dermatologic conditions; osteoporosis; gastrointestinal conditions; geriatric conditions; the care of stroke patients and emergency care.

<sup>25</sup> <http://www.hhs.gov/transparency/pilot/index.html>

<sup>26</sup> [http://www.cmwf.org/publications/publications\\_show.htm?doc\\_id=428880](http://www.cmwf.org/publications/publications_show.htm?doc_id=428880)

- **CAHPS Physician and Group Survey.** This most recent addition to the family of consumer satisfaction surveys for health services will be launched in May, 2007. The purpose of the survey, developed by AHRQ, American Institutes for Research, Harvard Medical School and the RAND Corporation, is to collect information about the patient's experience receiving health care services. Different survey manuals cover adult primary care, adult specialty care and primary care for children. Like the other CAHPS surveys (for health plans and hospitals), this one will be in the public domain.
- Over half of **state Medicaid programs** include some type of pay-for-performance structure, and almost 85 percent intend to do so within five years, according to a report published in April, 2007 by The Commonwealth Fund.<sup>27</sup> The report also notes that in many states, Medicaid's programs are run in conjunction with the private sector and in collaboration with providers.
- At the request of AHIC, the Office of the National Coordinator for Health Information Technology, part of the federal department of Health and Human Services, has drafted a "**use case**," laying out the purpose, roles and potential application of health information technology.<sup>28</sup>
- The CCHIT has recently issued its **first set of electronic health record certification criteria** and its first **list of certified products**<sup>29</sup>, for ambulatory care, providing much-needed guidance for providers as they purchase information technology software and hardware.

## 4. Measurement methodologies

There are several ways of measuring and presenting provider quality, and these are growing in sophistication as more detailed clinical information about patients becomes easily accessible. Three commonly-used methodologies are:

- Percent compliance
- Actual vs. expected performance
- Performance against a benchmark

### **Percent compliance**

The most basic measures of provider quality are numerator/denominator equations:

- The denominator represents *the number of times that a provider had the opportunity to provide an element of recommended care to a patient who was a candidate for that care.*
- The numerator consists of *the number of times that the care was provided.*

The resulting proportion is expressed as a percent that indicates compliance with the measure. Examples of this type of measure include NCOA's *HEDIS*<sup>®</sup> measures and the measures of hospital quality published by Medicare in its **Hospital Compare** tool.

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<sup>27</sup> Kuhmerker and Hartman, Pay for Performance in State Medicaid Programs: A Survey of State Medicaid Directors and Programs. New York: The Commonwealth Fund, April, 2007. Accessible at: [http://www.cmfwf.org/publications/publications\\_show.htm?doc\\_id=472891](http://www.cmfwf.org/publications/publications_show.htm?doc_id=472891)

<sup>28</sup> <http://www.hhs.gov/healthit/documents/PrototypeUseCaseQuality.pdf>

<sup>29</sup> <http://www.hhs.gov/healthit/product/>

The usefulness and accuracy of these measures are governed by several factors:

- The **evidence** behind the recommended care being measured. The IOM's definition of quality (see page 1) states that health care services need to be "consistent with current professional knowledge." As many of the performance measures currently in use assess whether certain processes have taken place (for example, does a heart attack patient receive aspirin within 24 hours of arrival at a hospital?), the process needs to be proven to be of benefit to the patient.

The NQF's process for endorsing measures provides many opportunities for providers and researchers to weigh in on the strength of the evidence behind measures under consideration.

- The **definition** of the denominator. Not all processes of care, even the most widely applicable, are appropriate for all patients. Some heart attack patients, for example, have contraindications for aspirin, and an accurate performance measure ensures that these patients are not counted in the group of people who "should" have received the treatment.
- The **source** of the data. Currently, the source of these measures is most often administrative data, that is, billing or claims data. (The measurement specifications for CMS's PQRI, for example, tell which Current Procedural Technology [CPT] category II codes apply in calculating the numerator for each measure.) This use of administrative data makes many potential users of performance measures uncomfortable, out of concern that administrative information does not include enough clinical nuance to ensure accuracy. This concern has driven many initiatives to base performance measurement on data taken from, for example, electronic health records (EHRs.)
- The **comparability** of the data. One goal of transparency in performance measurement is to give patients and their families information so they can make informed decisions about health care services – decisions that most likely will involve choice. In choosing between two options, a patient needs to know that the comparison presented is of like to like.

### ***Actual vs. expected performance***

Many of the measurement sets being used in pay-for-performance initiatives look at process data: if someone should have received a type of care, did they in fact receive it? The "percent compliance" measures are well suited to measurement of processes.

Measurement becomes more difficult when the information is about patient outcome. Some patients are frailer than others and outcomes will vary regardless of actions taken by providers. One method used to account for the underlying patient condition reports on whether the outcome of a patient (mortality, for example) is above, below or equal to the outcome that would be expected for a group of patients with similar underlying conditions and health status.

Several State government-sponsored reports on provider performance in coronary artery bypass graft surgery, such as New York State's, compare the observed mortality rate for a hospital or cardiac surgeon to the expected mortality rate for the mix of patients treated at that hospital or by that surgeon. These reports also present a risk-adjusted mortality rate that compares a provider's performance to the performance of all providers in the state as a whole.

In order to calculate expected and risk-adjusted mortality rates, producers of such reports need to account for the risk factors for each patient. New York State collects about 40 specific clinical characteristics per patient.<sup>30</sup> The accuracy of the resulting reports is dependent on the accuracy of the information about these clinical conditions. These reports also depend on having effective, robust, tested statistical models that account for these patient characteristics in predicting mortality rates.

One criticism of this type of quality reporting is that it provides a disincentive for providers to care for the sickest patients, those most likely to have a bad outcome. The research is inconclusive on whether this is, in fact, the case.<sup>31</sup>

### ***Performance against a benchmark***

A third type of performance reporting seeks to push performance improvement by comparing a provider's performance level to the benchmark, or the best in class; the AQA says benchmarks "should reflect the best current assessment of optimal care and efficiency rather than average performance, wherever possible."<sup>32</sup>

As the AQA definition indicates, these comparisons against benchmarks are used to capture the notion of efficiency. Often, these assessments of efficiency use as their point-of-comparison an entire episode of care, that is, all the range of treatments (physician, pharmacy, hospital, physical therapy, home care) provided for one instance of a condition or illness. In some cases, providers make use of "groupers," sophisticated data systems, to track all of the costs associated with an episode of care, so the determination of efficiency can include all parts of the health care delivery system. The efficiency of each part of the system can then be compared to a benchmark, to identify where improvement work could be best targeted.

## **5. The Future of Performance Measurement**

If physicians discover or are provided with credible, actionable information that points to an area in their practice where value provided to their patients can be improved, they will want to do so. There is pent-up demand among physicians to improve the system directly, having lacked much of the information need to do so at the ground level.

The Commonwealth Fund's report on CMS's Physician Group Practice Demonstration, referenced above, found that the participating group practices had "used the demonstration as a vehicle for expanding data systems, care management programs, coordination-of-care efforts, and other interventions that are not directly reimbursed in (fee-for-service) payments."<sup>33</sup>

So, there is demand, and some evidence that making the right information available and changing payment incentives can help physicians improve care. This paper has described a movement for performance measurement and the reward for good performance that is gaining momentum, and is perhaps a bit more consolidated than it was even a few years ago.

There are likely to be both failures and successes in this time of significant experimentation, and while various approaches and tools may or may not succeed, it is likely that the trend towards significant transparency and performance measurement is robust and potentially transformative.

Ultimately, the goal is a coherent, organized, comprehensive, useful system of performance measurement and reward. This goal will never be achieved, however, without the participation of physicians.

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30 New York State Department of Health, Adult Cardiac Surgery in New York State 2002 – 2004; Albany, June 2006, p. 9.

31 Petersen, Laura A., et al., Does Pay-for-Performance Improve the Quality of Care? *Ann Intern Med.* 2006;145:265-272.

32 AQA, Principles of Efficiency Measures, accessible at <http://www.aqaalliance.org/files/PrinciplesofEfficiencyMeasurementApril2006.doc>

33 Trisolini, Michael et al., Medicare Physician Group Practices: Innovations in Quality and Efficiency. New York: The Commonwealth Fund, December, 2006, p.viii.

## 6. The Role for Physicians

As the system continues to develop, physicians – especially groups of physicians acting collectively, such as the medical specialty societies – need to play a central and vital role in its evolution. Specifically, physicians and their societies need to:

- Develop the evidence base for clinical practice guidelines from which the performance measures are generated.
- Develop the decision support that informs quality improvement subsequent to performance measurement.
- Exert leadership in advancing scientifically valid and expertly designed assessment initiatives. The AQA is one vehicle that gives physicians a voice and platform for this leadership.
- Fight for standardization of measures (or face the consequences of having multiple measures and measurement systems). The NQF was established to give the health care delivery system a mechanism to rationalize the measures of performance it will use. The NQF's endorsement process offers many opportunities for participation in measure development.
- Devote resources, expeditiously, to the development of useful and valid performance measures for the important clinical areas in their field of medicine.
- Share information with colleagues and members about developments in performance measurement and the use of these measures.
- Support their members in data collection, especially through activities that support the use of electronic health records and the development of helpful and useful standards for information technology.
- Include the concept of performance assessment – and the use of this assessment for quality improvement – in any and all continuing medical education activities.
- Develop methodologies to integrate performance, as measured through the use and reporting of carefully-designed and valid measurement sets, into ongoing Board certification.

Finally, physicians and physician groups need to accept the challenge of adding the physician's voice to the communication of performance information to the general public. The true goal of all these measurement efforts is, ultimately, the improvement of quality that should result from transparency and from a concomitant realignment of payment incentives (as the Physician Group Practice Demonstration showed.) This hypothesis will only be proven true, however, if transparency includes true understanding of the meaning of the information provided in public performance reports. Physicians have the information to help build this understanding – both in the public arena, through work with AQA and NQF, and in their ongoing interactions with, and care of, their patients.



## To Learn More....

*Visit the Web sites of the organizations cited in this report:*

Agency for Health Care Research and Quality .....	<a href="http://www.ahrq.gov">www.ahrq.gov</a>
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AQA Alliance .....	<a href="http://www.aqaalliance.org">www.aqaalliance.org</a>
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National Business Group on Health .....	<a href="http://www.businessgrouphealth.org">www.businessgrouphealth.org</a>
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National Partnership for Women and Families.....	<a href="http://www.nationalpartnership.org">www.nationalpartnership.org</a>
National Quality Forum.....	<a href="http://www.qualityforum.org">www.qualityforum.org</a>
New York State Cardiac Reporting .....	<a href="http://www.health.state.ny.us/nysdoh/heart/heart_disease.htm">http://www.health.state.ny.us/nysdoh/heart/heart_disease.htm</a>
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Physician's Consortium for Performance Improvement .....	<a href="http://www.ama-assn.org/ama/pub/category/2946.html">http://www.ama-assn.org/ama/pub/category/2946.html</a>
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