

Quality Measurement and Public Reporting in the Current Health Care Environment

Introduction

The care provided by health care facilities within this country is the most scientifically advanced care in the world (Institute of Medicine, 2006). Yet the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry reported that "while most Americans receive high-quality health care, too many patients receive substandard care" (1998:1). Performance measurement is central to quality improvement because it provides information on current and past performance that can help guide future improvement efforts. In particular, valid performance measures can distinguish between good and substandard performance. Measurement is one of the "first steps in the improvement process and involves the selection, definition, and application of performance indicators..." (Fine and Snyder, 1999: 24).

According to the Institute of Medicine (IOM), "performance measures can serve as the foundation for public reporting programs intended to promote accountability among providers and to aid consumers in making informed choices, [can] serve as the basis for payment incentives that reward providers who deliver more effective and efficient care, and [can] guide and inform clinicians and organizations in their quality improvement initiatives" (IOM, 2006: 2). Public disclosure of performance measures may contribute to advancing improvement via incremental changes in consumer, professional, and managerial behavior (Leatherman and McCarthy, 1999; Fowles, 2000). A commitment to performance measurement can bring internal improvement. The transparency achieved through public disclosure can accelerate the quality improvement process and create accountability for resource use.

Scope and Purpose

On June 19, 2007, the Quality Workgroup of the National Committee on Vital and Health Statistics (NCVHS) held a hearing on the current state of hospital quality measurement and public reporting of performance. Although the hearing testifiers reported on hospital data, the Quality Workgroup was attuned to themes that can be generalized to quality measurement in an array of settings. Our health care system currently measures quality using a hybrid model that spans paper and electronic records, integrating information from medical records with administrative and claims data (coded in ICD-9-CM and CPT) as well as other, non-traditional data sources. These efforts include an array of measures, such as (1) immediate outcomes (complications and/or mortality), (2) process measures of care delivery (associated with better outcomes), and (3) the new nursing care measures, such as productivity and workload data (predicted to impact outcomes). Because the electronic health record is still in its early stages of development and implementation, our health care system for the near term will continue to rely on administrative data supplemented with clinical data to provide a picture of quality. This hearing explored both current and state-of-the-art ways of collecting, measuring, and reporting hospital performance. The hearing summary (attached) provides a synopsis of each presentation. This report summarizes the meeting's themes and proposes recommendations based on the findings of NCVHS.

Themes

The testimony covered a wide range of topics and examples from which four key themes emerged. While many testifiers shared stories of success, others told of struggles to achieve success. With or without electronic health records, they struggled because of challenges of the organizational culture and/or because of challenges of the measurement infrastructure. Current limitations of quality measurement notwithstanding, the Quality Workgroup finds that the success stories underscore (1) the pressing need to continue to improve quality measurement and reporting and (2) the potential for success, even while working with imperfect measurement systems.

1. An organization's commitment to performance measurement and public reporting is a major factor in improving the quality of care.

Several testifiers emphasized the impact that an organization's commitment and engagement in performance measurement played in improving the quality of care delivered. They identified several factors that contribute to effective quality improvement in response to measurement and reporting, including:

- a. Leadership that is publicly committed and passionate about quality and quality improvement;
- b. Adequate resource investment in quality improvement activities, including investing in the necessary people, skill development, time, systems, and data sources;
- c. Interdisciplinary collaboration with strong physician participation in a core team that provides regular guidance and support to the organization's staff;
- d. A transparent process that is open to public scrutiny;
- e. An emphasis on learning and continuous quality improvement; and
- f. Ongoing dialog across all organizational levels engaged in quality measurement and improvement.

One testifier reported that in-hospital mortality rates for matched patient populations were higher in states without public reporting as compared to Pennsylvania, which has public reporting through the Pennsylvania Health Care Cost Containment Council. Another testifier spoke about the multiple audiences for public reporting, stating that, while reporting is often thought to be intended primarily for the consumer, the real power may lie in the impact it has on the organization by serving as a vital catalyst for the providers themselves.

2. Quality measures must be reliable, accurate, valid, and comprehensive.

Two challenges to the credibility of quality measurement are the validity and adequacy of the data. Quality measure reports based on the Veterans Administration electronic health record data have high acceptance, utility, and reproducibility. Manually collected data from the National Surgical Quality Improvement Program (NSQIP) also have high acceptance, as they include elements that allow for risk adjustment of morbidity and mortality outcomes. In the CMS Premier Quality Incentive Demonstration Project, selected quality indicators were manually abstracted and submitted. Lessons learned from this project include the need for severity and risk adjustments, so that payment

rewards can be equitable. Administrative hospital discharge data coded in ICD-9-CM tend to be the mainstay of many reports, and have the benefit of being readily available and uniformly bounded by coding rules. However, as is true for all data sources, without the application of a severity adjustment methodology, quality measures based solely on ICD-9-CM codes have the potential risk of misrepresenting performance when population acuity is not uniform. Recent studies (Pine et al 2007; Tabak et al 2007) report encouraging and significant potential for improvement in risk stratification by adding two additional kinds of information. These are (1) a “present on admission” indicator for ICD-9 CM diagnosis codes for hospital inpatients and (2) clinical data, such as laboratory results and vital signs. The value of administrative data for quality measurement would be further enhanced by the adoption of ICD-10-CM and ICD-10-PCS, which afford more detailed and specific designations than does ICD-9-CM. NCVHS has recommended the replacement of ICD-9-CM (Letter to HHS Secretary Thompson November 5, 2003). Recently developed nursing measures, including hours of care per patient day, and prevention of harms such as falls and pressure ulcers, may further expand and enhance quality measures.

3. Quality measurement must not unduly burden administrative infrastructure.

Testifiers spoke to the need to be efficient about getting to comprehensive measures of quality. The cost of manual abstraction of quality measurement is large and growing—described by one testifier as an “unfunded mandate” on providers of care. Over the last three years, Hackensack Hospital estimates expenditures for quality data collection have increased by 72 percent. Chart abstraction remains a mainstay of data collection, not only in a paper environment, but also in some electronic health record systems (e.g., VA) when required data elements are not systematically captured. Burden is compounded when similar information requests use varying formats, definitions, and/or population exclusions.

Expanding the list of measures without retiring older measures also adds to the burden. Frustration is increased when widespread high performance on a measure is achieved and sustained, but ongoing reporting is still required, calling into question the benefit relative to the cost for measures in this situation.

4. Quality measurement and the data sources are continually evolving.

In this time of vigorous attention to the quality of health care, the landscape is evolving at an accelerating pace. Two things are happening in parallel: First, understanding of the elements that contribute to quality is evolving. Second, tools for measuring quality are becoming more sophisticated. Where early quality initiatives focused primarily on reporting mortality rates, there is now a focus on a broader array of outcomes and process measures, and greater understanding of the role of many other factors that contribute to an outcome. Such factors include physician care delivery (e.g., timely and appropriate medications) and nursing care delivery (e.g., prevention of falls and pressure ulcers). Further, outcomes are assessed not just during the inpatient stay but after discharge, with a long-term goal of longitudinal, person-centric outcomes across many settings. The ability to measure performance is evolving, as well. Administrative ICD-9-CM and CPT codes currently are widely available, while full EHRs are available in only a minority of settings. Increasingly, however, electronic clinical data elements, such as lab and pharmacy values, are becoming available. The addition of these electronic clinical elements to administrative data has the potential to decrease the current burden of data

collection and provide clinically relevant, risk-adjusted performance information for continued quality improvement.

Testifiers questioned whether administrative data would ever be fully supplanted by easy access to EHR data, suggesting that a combination of data sources may always be needed to provide a more complete picture of quality. Nevertheless, there is the expectation that with EHRs, a great deal of quality measurement and improvement can become a byproduct of care instead of a separate activity. Potential benefits of the EHR include simplification of data capture, storage, linkage and reporting, coupled with clinical decision support. However, unless standard data elements used in quality measures are incorporated into the design of EHR systems, quality reporting will continue to require significant additional effort, as was described in the hearing session on the VA EHR. Today, with EHR adoption still in its early stages, EHR systems often require extensive customization to enable collection of the information hospitals need for performance reporting and quality improvement. Better understanding of the functionality and use of EHRs and other care systems also can shape the definition of new quality measures. Parallel processes must now take place—improve what is now available, build toward what will be available in the future.

On the basis of testimony, the Quality Workgroup concluded that there is both progress and promise in using public reporting for quality improvement. The Workgroup also saw that a number of institution-specific burdens and infrastructure barriers at local and system-wide levels today prevent these practices from becoming the norm for the entire healthcare system.

Recommendations

NCVHS recommends that the Department initiate and/or accelerate actions as outlined in the recommendations below.

Public Reporting

1. Promote public reporting of valid quality measures in a consistent format, to promote consumer understanding and otherwise enhance comparability and learning.

Data quality

2. Support the standardization of the specifications of quality measures, and their widespread acceptance by a consensus of users (as the National Quality Forum has begun).
3. Accelerate US adoption of ICD-10-CM and ICD-10-PCS by publishing the required notice of proposed rule-making. (See the 9/26/07 NCVHS letter to the Secretary on the urgent need for revisions to HIPAA transaction standards.)
4. Support research for improving measurement accuracy and validity, including risk adjustment of quality measures. This might include adding to administrative data other types of data, such as clinical elements or staffing information.

Performance measurement reporting infrastructure

5. Support the ongoing development of a set of common data elements for assessing quality of care that considers the increasing availability of computerized clinical data.
6. Ensure that EHR certification criteria include support for capturing and reporting core quality measures.
7. Support research for:
 - a. Specifying, updating and maintaining core measure sets, including prioritization of target areas and modification of measures to align with evolving evidence, cost/benefit of ongoing measurement, and criteria for retiring unproductive quality measures or reducing their rates of collection and reporting
 - b. Developing and testing tools that can be used to search free text for easier abstraction of quality measurement data from the medical record

Evolving landscape of performance measures and EHRs

8. Accelerate adoption of EHRs as an integral part of the quality reporting and improvement functions of health care organizations.
9. Develop a roadmap for migrating from quality measures that rely on administrative data to ones derived from clinical data in an EHR, with provision for research and development as well as pilot testing.

Attachment: Meeting summary**References**

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