Measure Registry Needs Assessment

Webinar Summary: Exploration of Current Systems and Approaches for Measure Information Management

Through the Measure Registry Needs Assessment project (www.qualityforum.org/RNA), funded by HHS, the National Quality Forum (NQF) will gather feedback on needs and key considerations for a standardized approach for identifying and tracking measure information. Through a series of discussions[1] with organizations that developed and use systems and approaches for maintaining measure information, NQF asked several of the organizations to share with the general public information on their systems.

Organization or Agency	Measure Information Management System
Agency for Healthcare Research and Quality/ ECRI Institute	National Quality Measures Clearinghouse and HHS Measure Inventory
Centers for Medicare & Medicaid Services (CMS)/ Health Services Advisory Group	CMS Measures Inventory
Department of Veterans Affairs	Performance Integrated Tracking Application
The Joint Commission	Performance Measurement Network Q&A Forum
Kaiser Permanente	Quality Measures Clearinghouse
National Quality Forum	Measure Database and Quality Positioning System

Information about these systems was shared via a public webinar, "Exploration of Current Systems and Approaches for Measure Information Management," held on July 26, 2012, to:

1) Explore current systems for managing measure information;
2) Share specific challenges and lessons learned in developing and using these systems; and
3) Provide an open forum for presenting organizations and the general public to interact.

This document provides an overview of the featured systems, and details the challenges and lessons learned in the organizations' efforts to gather, store, and maintain measure information.

Overview of Featured Systems

Featured organizations vary on the purpose and audience(s) of their systems. Organizations from both the public and private sectors developed and use systems for a variety of purposes, including: tracking measures used within a healthcare provider network and linking those measures with performance results; maintaining information about measures used in specific accreditation or performance-based reporting programs; and/or publicly displaying information about measures to support their use and implementation. Despite this diversity, several similarities exist across all systems.

- All systems are housed on an electronic or web-based platform and include search and filtering functionalities.
- The systems have in common several metadata fields for capturing measure information, including a measure name or title, numerator, denominator, exclusions, measure developer, care setting, and data source.

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[1] A summary of the stakeholder discussions is available at www.qualityforum.org/RNA.

- Many organizations have created their own process and/or use external frameworks for classifying measures.
  - The Agency for Healthcare Research and Quality (AHRQ) categorizes measures according to the National Quality Measures Clearinghouse (NQMC) Domain Framework, which AHRQ developed in partnership with RAND, the Harvard University School of Public Health, and Tufts University.
  - Kaiser Permanente includes in its classification of measures the Institute of Medicine's six aims for care delivery redesign.[2]
  - The Health Services Advisory Group (HSAG), who manages the CMS Measures Inventory, uses existing guidelines or frameworks—such as the National Priorities Partnership's goals[3]—for classifying measures. If such frameworks are not available, HSAG relies on the knowledge and experience of its staff to categorize measures.
- Most organizations track a measure's inclusion in specific national reporting and incentive programs.
  - HSAG tracks measures included in CMS programs.
  - Kaiser Permanente plans to specify whether a measure is used for regulatory and accreditation purposes.

In addition, the content and business requirements of measure information management systems drive the design of these systems. While limitations may exist regarding the kinds of information technology (IT) products available to support these needs, more often than not IT plays a secondary role.

Appendix A offers further details on the purpose of, intended audience(s) for, and types of measures within each system, and includes links to each organization and its system (if the system is publicly available).

Challenges Associated with Measure Information Management
In addition to providing details on their systems, featured organizations also revealed the various challenges they face in maintaining their systems and the information contained within, including:

- Maintenance of accurate, up-to-date information;
- Lack of standardization of measure information;
- Restrictions on how *and* how much information is shared; and
- The dynamic nature of quality measurement.

Maintenance of Accurate, Up-to-Date Information
One of the primary challenges organizations face is in maintaining the information stored within their systems. Many organizations struggle to keep up with the number and frequency of measure changes.

- Because AHRQ relies on a combination of information it receives from measure developers and information it seeks on its own, it has difficulty keeping abreast of all the activities associated with measures and related updates, including when a measure's endorsement status or its use in certain quality improvement initiatives changes.

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[2] The six aims for care delivery redesign—that care should be safe, effective, patient-centered, timely, efficient, and equitable—are described in the IOM's *Crossing the Quality Chasm: A New Health System for the 21st Century* (www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx).
[3] Information on the National priorities Partnership can be found at www.qualityforum.org/Setting_Priorities/NPP/National_Priorities_Partnership.aspx.

- HSAG finds maintaining accurate measure information to be burdensome. HSAG relies on a variety of sources for measure information, including CMS program leads and/or contractors, CMS program specification manuals, and NQF's measure information tools.
- The Joint Commission recognizes that because there is lag time between a new version of a specifications manual and its implementation, displaying historic versions of manuals in the Performance Measurement Network Q&A Forum helps *users* keep track of changes over time.

Organizations also devote considerable resources to maintaining measure information, and it can be challenging to maintain those resources.

- Both AHRQ and HSAG do not have routine, automated feeds to receive information from measure developers or other measure information sources, and consequently rely on manual data entry and maintenance.
  - HSAG would like to set up feeds from NQF's database to help automatically update information specific to endorsement status of a measure.
  - Conversely, AHRQ prefers manual entry so it can ensure that information put into the system is accurate and consistently entered.
- Kaiser Permanente depends on staff for data input and maintenance of information over time, but these tasks require time beyond employees' regular full-time responsibilities.

Lack of Standardization of Measure Information

Because standardization of the fields and definitions for measure information does not exist, organizations devote significant resources to making sure information from external sources matches their structure for the information they collect about measures.

- HSAG must 'translate' and align the fields and definitions of external measure information sources with those in their CMS Measures Inventory.
- The Department of Veterans Affairs (VA) credits part of its system's usefulness to its standardization of the measure metadata fields *within* its measure, data, and reporting system—the Performance Integrated Tracking Application (PITA).

Restrictions on How *and* How Much Information is Shared

Another constraint that organizations grapple with is working within the IT and security parameters set either by their own organization or by others. Federal agencies (or organizations working on behalf of federal agencies) with public-facing websites must comply with various federal guidelines beyond organizational directives regarding their public sites. These restrictions can limit technology platform choices as well as the types of functionality that can be made available.

- AHRQ must comply with the Federal Information Security Management Act (FISMA), which requires all federal agencies to implement information security practices and procedures for any information shared or information systems in use.

How much information is displayed publicly is also restricted, particularly in public-facing websites. For example, AHRQ and NQF use agreements with measure developers to agree to what can and cannot be displayed about measures, which limits the extent of information that is displayed publicly. These agreements also serve to protect the business models of some measure developers. As a result, and since organizations like AHRQ and NQF are viewed as primary sources for measure information, implementers cannot easily find all the information they need to use a measure from current public sources.

Dynamic Nature of Quality Measurement

In an era when quality measurement and public reporting is evolving to support performance-based evaluation and comparisons across regions, states, and communities, measures and the information that needs to be captured about them also grow more complex over time. Some organizations recognize that their systems may benefit from greater flexibility and/or additional discussion and development to stay on pace with these needs.

- AHRQ would like to incorporate into NQMC care coordination and care transition measures, as well as composite measures that apply to multiple domains within the NQMC Domain Framework.
- HSAG would like to improve how their system manages measure specifications by: 1) tracking changes to specifications from older to newer versions of a measure; and 2) capturing variations on specifications to detail the data source or setting requirements that may vary for one measure depending on the CMS reporting and incentive program within which it is included.

In addition, many organizations are considering how to best incorporate eMeasures[4] into their systems. Kaiser Permanente includes eMeasure specifications within its system, but others have not yet determined how or when to do the same.

- As AHRQ considers how to incorporate eMeasures into NQMC, the transition to the ICD-10 code system adds to the challenges for best evolving NQMC to meet growing needs.
- The Joint Commission is working on including access to eMeasures through its Wiki platform. It hopes to implement a plug-in that will allow the Wiki to read human-readable formats of individual eMeasures.

Lessons Learned from Managing Measure Information

The featured organizations also reflected on the lessons they learned through developing and maintaining systems, and suggest that organizations contemplating building a system:

- Start simple;
- Define processes and resources; and
- Allow for flexibility.

Start Simple

Several organizations suggest to others who are considering developing or enhancing a measure information system to not expect too much too fast. During development of their systems, many organizations encountered challenges because the scope of their systems was too broad during the early stages of development.

- The VA found the initial development of PITA to be challenging, as they were trying to create a 'one-stop shop' for measure information as well as a reporting interface for network providers.
- HSAG advises—particularly because measure information systems also often support internal workflow processes—starting with simple goals before adding complex business requirements to any system or approach.
- Kaiser Permanente, when asked by a webinar participant which measures an organization should start with when first creating a system, advises using measures that are easily accessible

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[4] Electronic measures (eMeasures) are standardized performance measures in an electronic format. More information can be found at www.qualityforum.org/Projects/e-g/eMeasures/Electronic_Quality_Measures.aspx.

and already in widespread use. Kaiser Permanente started with Healthcare Effectiveness Data and Information Set (HEDIS) and Joint Commission measures for its system.

Define Processes and Resources

Primary contributors to the success of the featured systems are defining processes upfront and allocating resources for managing and maintaining their systems.

- To successfully manage and track all information captured in NQMC, AHRQ has established extensive workflow tracking processes, including system-facilitated processing of measure information. AHRQ applies different input and maintenance processes to the measures provided by HHS agencies for inclusion in the HHS Measure Inventory.
- The Joint Commission uses its system to triage questions from users to specific members of the system's support team.

Organizations also recognize that managing measure information requires specific expertise.

- While Kaiser Permanente's Quality Measures Clearinghouse was largely developed as a 'one-man show', content experts play an important role in the maintenance of the information.
- The VA depends on measurement, database, and reporting expertise in-house to successfully operate and manage PITA.

Allow for Flexibility

Due to the rapidly changing healthcare quality environment, it has become increasingly important that organizations structure their systems to allow for flexibility and to keep pace with evolving information needs.

- To support the complex measure information needs of CMS, HSAG staff can quickly make changes to measures and add and delete content from information fields within the CMS Measures Inventory. HSAG also relies heavily on the system's standardized reports while having the flexibility to create ad-hoc reports and conduct queries.

Organizations also need to balance their desire to remain flexible while keeping their system simple and user-friendly. As a result, many organizations have structured their system to allow for customization.

- The VA's PITA system is designed to meet multiple needs—measure maintenance, data storage, and reporting—and interfaces are customized to help users easily complete those tasks.

Next Steps

The webinar's featured organizations and agencies work hard to meet internal and external measure information needs. Much can be learned through their experiences in building and maintaining measure information systems within an evolving quality measurement environment. Further and more in-depth discussion is needed to understand the wide range of information needs from the full spectrum of stakeholders in healthcare quality measurement and reporting, and to examine possible short- and long-term approaches for meeting those needs.

NQF will host an in-person meeting on September 5, 2012, at which participants will explore needs, gaps, potential recommendations, and related trade-offs for a standardized approach to gathering, storing, and accessing measure information. A report summarizing the findings will be submitted to HHS and shared via the NQF website by the end of 2012. More information on this project is available at www.qualityforum.org/RNA. Questions should be directed to Anisha Dharshi at rna@qualityforum.org.□

Appendix A—Featured Systems: Purpose, Intended Audience(s), and Types of Measures Included

The following table describes the purpose, intended audience(s), and types of measures included in each of the webinar's featured systems. Hyperlinks to each organization and its system (if the system is publicly available) are also included.

Organization or Agency	System	Purpose and Intended Audience(s)	Types of Measures Included
Agency for Healthcare Quality and Research (AHRQ)/ ECRI Institute	National Quality Measures Clearinghouse (NQMC)	Provide the public with access to detailed information on evidence-based quality measures to further the measures' dissemination, implementation, and use.	Includes quality measures that satisfy NQMC's Inclusion Criteria.
	HHS Measures Inventory	Provide the public an inventory of the measures that are currently being used by HHS agencies for quality improvement and reporting to advance collaboration among the quality community as well as advance the effective use and harmonization of measures.	Includes measures that are in use by HHS agencies for quality measurement, improvement, and reporting. Accessible via the NQMC.
Centers for Medicare & Medicaid Services (CMS)/ Health Services Advisory Group (HSAG)	CMS Measures Inventory	Provide HSAG staff a centralized location to manage all CMS measures with the ability to sort and track measures as well as produce reports for CMS.	Includes all CMS measures in use by federal programs.
Department of Veterans Affairs (VA)	Performance Integrated Tracking Application (PITA)	Provide VA leadership, facility, and network staff a single source for internal management of the technical specifications and administrative attributes of measures as well as a reporting interface for measure users.	Includes system-wide accountability measures, quality indicators, internal operational metrics, and measures to inform external stakeholders (i.e., Congress).
The Joint Commission	Performance Measurement Network Q&A Forum	Provide external users links to current, future, and historical versions of The Joint Commission's specifications manuals. Provides a forum for users to browse frequently asked questions and pose new questions regarding The Joint Commission's initiatives, performance measurement requirements, and measure specifications.	Includes current, future, and historical versions of the specifications manual for Joint Commission National Quality Core Measures and links to the specification manual for National Inpatient Quality Measures.
Kaiser Permanente	Quality Measures Clearinghouse	Provide Kaiser Permanente's senior leaders, research, and analytics staff the ability to retrieve information about quality measures, inform decisions about resource allocations for quality measurement, and assist in responding to requests for proposals.	Includes Healthcare Effectiveness Data and Information Set (HEDIS) and Joint Commission measures.
National Quality Forum (NQF)	Measure database and Quality Positioning System (QPS)	Provides support for internal work-flow process via back-end measure database. Via QPS, provides public access to information about NQF-endorsed® measures to support measure development and the use of endorsed measures.	Within the back-end database, includes all measures that have been through the endorsement process and tracks measure versions. QPS provides information about endorsed measures.