

2011



NQF Mission

The National Quality Forum (NQF) operates under a three part mission to improve the quality of American healthcare by:

- building consensus on national priorities and goals for performance improvement and working in partnership to achieve them;
- endorsing national consensus standards for measuring and publicly reporting on performance; and
- promoting the attainment of national goals through education and outreach programs.

As a private sector standard setting body recognized under the National Technology Transfer and Advancement Act (PL 104 113), NQF endorses standardized performance measures, serious reportable events, and safe practices. NQF also serves as the convener of two multi stakeholder partnerships: the National Priorities Partnership, which provides guidance on setting national priorities, goals, and strategic improvement opportunities; and the Measure Applications Partnership, which recommends measures for use in various public reporting, payment, and other programs.

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FOREWORD

In 2008, Congress passed the Medicare Improvements for Patients and Providers Act (PL 110-275),¹ signifying its growing recognition of the systemic nature of the nation's healthcare quality issues. The Act set bearings for the national healthcare performance improvement movement and charted a course for national action, presenting the opportunity to unify the nation's disparate healthcare quality improvement efforts into a coherent national strategy. Importantly, it did not impose top-down direction to achieve its goals. Instead, the Act provides guidance and resources for the federal government to work with a consensus-based entity to identify priorities and performance measures through an open and transparent decision-making process that affords an opportunity for all stakeholders to participate.

On January 14, 2009, the National Quality Forum (NQF) was awarded a contract that addresses the Act's Section 183, which calls for the Department of Health and Human Services (HHS) "to contract with a consensus-based entity, such as the National Quality Forum," to achieve many of these quality improvement goals. This contract subsequently was modified to accommodate specific work called for under the Patient Protection and Affordable Care Act of 2010 (PL 111-148).² This report summarizes the work performed under this contract between January 14, 2010, and January 13, 2011, the second full year that the HHS contract has been in place.

The first year of the contract was devoted to building infrastructure to support healthcare quality. We are pleased to report that in the second year of the contract, NQF has leveraged that infrastructure to demonstrate real achievements in the areas of the identification of priorities and gaps in available performance measures; adaptation of more than 100 measures for use in electronic health records; and endorsement of 62 new measures. These are concrete, measurable, and sustainable accomplishments in the nation's quality infrastructure that will translate into more effective performance improvement, public reporting, and value-based payment programs. We are grateful to the Congress and HHS for their continued support of NQF and, more broadly, of the quality enterprise in the United States. Their commitment to healthcare quality improvement is thoughtful, clear, and unquestioned. We also thank the more than 430 institutional members of NQF, the hundreds of experts who volunteer to participate in NQF expert panels, and NQF staff, whose efforts have contributed to a healthcare system that is becoming, as the Institute of Medicine (IOM) envisioned in its "call to action" a decade ago, safe, effective, patient-centered, timely, efficient, and equitable.



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Notes

1. US Congress, Medicare Improvements for Patients and Providers Act (PL 110-275), Washington, DC: US Government Printing Office; 2008. Available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:publ275.110.pdf. Last accessed December 2010.
2. US Congress, Patient Protection and Affordable Care Act of 2010 (PL 111-148), Washington, DC: US Government Printing Office; 2010. Available at www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf. Last accessed December 2010.

I. EXECUTIVE SUMMARY

Key strategies for reforming healthcare include: publicly reporting performance results to support informed consumer decision-making; aligning payments with value; rewarding providers for investing in health information technology (health IT) and using it to improve patient care; and providing knowledge and tools to healthcare providers and professionals to help them improve their performance. Foundational to the success of all of these efforts is a robust “quality measurement enterprise” that includes priorities and goals for improvement; standardized performance measures; an electronic data platform that supports measurement and improvement; use of measures in payment, public reporting, health IT investment programs, and other areas; and performance improvement initiatives in all healthcare settings. Many public- and private-sector organizations have important responsibilities in the quality measurement enterprise, such as various federal agencies, public and private purchasers, measure developers, the National Quality Forum (NQF), accreditation and certification entities, various quality alliances at the national and community levels, state governments, and others.

Recognizing the widespread and systemic nature of the nation’s healthcare quality and cost challenges and the need to build the nation’s quality measurement enterprise, Congress passed the Medicare Improvements for Patients and Providers Act (PL 110-275) in 2008. On January 14, 2009, NQF was awarded a contract that addresses the Act’s Section 183, which calls for the Department of Health and Human Services (HHS) “to contract with a consensus-based entity, such as the National Quality Forum,” to carry out work related to its quality improvement goals. On September 20, 2010, this contract was modified to accommodate specific work called for under the Patient Protection and Affordable Care Act of 2010 (PL 111-148).¹ This report

summarizes the work performed under this contract between January 14, 2010, and January 13, 2011. Appendix C provides a list of the reports produced.

During the contract period, NQF made important contributions to the following quality enterprise functions: setting priorities and goals, endorsing performance measures, building an infrastructure to support performance measurement using an electronic data platform, and providing input to the selection of measures for determining “meaningful use” of health IT.

NATIONAL PRIORITIES

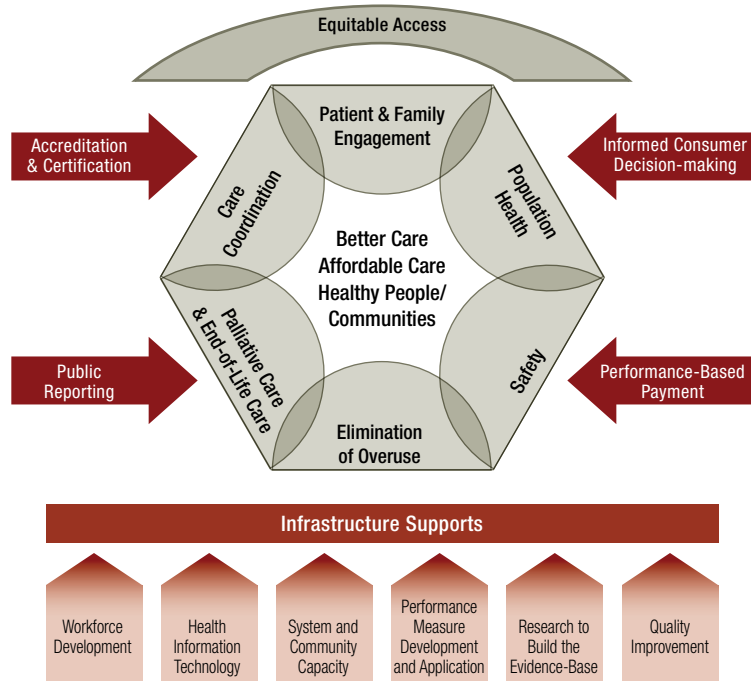
Setting national priorities is a critical first step to addressing our country’s serious safety, quality, and cost challenges. Providers cannot measure and improve in all areas at once. Priorities focus attention on those areas most likely to produce the greatest return on investment in terms of better health and healthcare. National priorities, especially when established with input from multiple stakeholders, also serve as a starting point for alignment of public- and private-sector efforts to improve performance. In 2010, NQF made three contributions to national priority-setting initiatives: providing guidance to HHS on the proposed National Health Care Quality Strategy, identifying a prioritized list of high-impact conditions for Medicare beneficiaries, and specifying an agenda for measure development and endorsement to fill gaps in available measures.

The Affordable Care Act calls for HHS to establish a National Health Care Quality Strategy and to consult with a consensus-based entity to convene a multi-stakeholder group to provide input on national priorities for improvement in population health and the delivery of healthcare services. When asked to perform this role, NQF convened the National Priorities Partnership (NPP), a collaborative that now includes 48 leading

organizations. In October 2010, NPP submitted its report to HHS, recommending eight priority areas for national action. These include the original six priorities NPP identified in a priority-setting effort in 2008: 1) patient and family engagement, 2) population health, 3) safety, 4) care coordination, 5) palliative and end-of-life care, and 6) overuse. They also include the addition of two areas of focus: 1) equitable access to ensure that all patients have access to affordable, timely, and high-quality care; and 2) infrastructure supports (e.g., health IT) to address underlying system changes that will be necessary to attain the goals of the other priority areas. NPP also offered aspirational and actionable goals to be achieved over the next three to five years for each priority area. (See figure at right.)

Complementing NPP's work, which focused on "cross-cutting" areas (e.g., care coordination) that affect all or most patients, was the work of NQF's Measure Prioritization Advisory Committee, which prioritized the top 20 high-impact Medicare conditions that account for more than 90 percent of Medicare costs. Improvements in the safety and effectiveness of the care processes for these conditions can affect the outcomes for millions of Americans and eliminate waste from the health system.

Recommendations of the National Priorities Partnership



Source: National Quality Forum (NQF), *Input to the Secretary of Health and Human Services on Priorities for the 2011 National Quality Strategy*, Washington, DC: NQF; 2010. Available at www.nationalprioritiespartnership.org/. Last accessed February 2011.

Prioritized List of 20 High-Impact Medicare Conditions*

- | | |
|--|---|
| 1) Major depression | 10) Colorectal cancer |
| 2) Congestive heart failure | 11) Hip/pelvic fracture |
| 3) Ischemic heart disease | 12) Chronic renal disease |
| 4) Diabetes | 13) Prostate cancer |
| 5) Stroke/transient ischemic attack | 14) Rheumatoid arthritis/osteoarthritis |
| 6) Alzheimer's disease | 15) Atrial fibrillation |
| 7) Breast cancer | 16) Lung cancer |
| 8) Chronic obstructive pulmonary disease | 17) Cataract |
| 9) Acute myocardial infarction | 18) Osteoporosis |
| | 19) Glaucoma |
| | 20) Endometrial cancer |

* As determined by NQF Measure Prioritization Advisory Committee under contract to HHS.

Source: NQF, *Prioritization of High-Impact Medicare Conditions and Measure Gaps*, Washington, DC: NQF; 2010. Available at www.qualityforum.org/projects/prioritization.aspx#t=2&s=&p=4%7C. Last accessed February 2011.

Taken together, cross-cutting areas and the prioritized conditions provide a two-dimensional framework for performance measurement. The current portfolio of NQF-endorsed measures includes many measures applicable to these cross-cutting areas and leading conditions, but there are important gaps. To advise HHS on how best to focus measure development resources on filling these gaps, NQF was asked to construct an agenda for measure development and endorsement. In constructing this agenda, the NQF Measure Prioritization Advisory Committee also considered child health measurement needs and the needs of the broader population health community. The final report, *Measure Development and Endorsement Agenda* (January 2011, available at www.qualityforum.org/MeasureDevelopmentandEndorsementAgenda.aspx), provides prioritized lists of measure gaps in eight areas: 1) resource use/overuse, 2) care coordination and management, 3) health status, 4) safety processes and outcomes, 5) patient and family engagement, 6) system infrastructure supports, 7) population health, and 8) palliative care. As described below, efforts are well underway to fill these gaps.

PERFORMANCE MEASURES

The NQF portfolio of endorsed measures includes more than 625 measures that support the needs of both public- and private-sector stakeholders and are appropriate for use in accountability and quality improvement programs. The measures fall into the following major categories: measures of patient outcomes (e.g., mortality, readmissions, complications, health functioning); care processes (measures of adherence to practice guidelines, such as prescribing beta antagonists after heart attacks); patient experience (e.g., patient's perception of the quality of hospital care); resource use

measures (e.g., average nursing care hours per patient day); and composite measures (e.g., overall indicator of pediatric patient safety constructed from measures of adverse events). Although the total number of measures is sizable, the number applicable to a given provider type—ambulatory practices, emergency services, hospitals, nursing homes, home health, rehabilitation services, mental health and substance abuse providers, kidney dialysis centers, and health plans—is more limited. To meet the needs of many, the portfolio also must accommodate measures that run off different data platforms (e.g., paper records, administrative/claims data, electronic health records) during this period of transition to an electronic platform.

During the contract period, the HHS contract provided support for measure endorsement projects in the following areas: patient outcomes for the 20 high-impact Medicare conditions; patient safety, including medication safety and healthcare-associated infections; nursing homes; child health; and efficiency and resource use. NQF's endorsement process, which includes evaluation by technical experts and a multi-stakeholder panel, as well as extensive public input, requires up to a year to complete depending on the volume and complexity of measures. On occasion, a project also may be temporarily halted to allow time for the measure developers to change measures in response to NQF requests (for example, two measures of overuse of neck imaging in trauma combined). There were 62 newly endorsed measures resulting from the work conducted during the contract period—14 endorsed prior to the close of the contract period and another 48 awaiting final ratification by the NQF Board (which occurred shortly after the close of the reporting period). See Appendix B for a complete list of newly endorsed measures.

Newly Endorsed Measures by Measure Type*

MEASURE TYPE	NUMBER OF MEASURES
Outcome	38
Process	8
Patient Experience	6
Resource Use	6
Composite	4
Total	62
* Measures endorsed as a result of HHS contract, 1/14/10 to 2/28/11	

In addition to endorsing new measures, NQF also oversees the updating and maintenance of currently endorsed measures. As a condition of maintaining endorsement, measure developers are required to update their measures to reflect changes in the evidence base. NQF-endorsed measures undergo a comprehensive re-evaluation every three years and must recompute “head-to-head” with any new or existing measures for “best-in-class” determination. During the contract period, NQF began maintenance of the 47 cardiovascular measures and 44 surgical measures in its portfolio.

NQF also analyzed the implications of the transition from the International Classification of Disease, Ninth Revision, Clinical Modification (ICD-9-CM) to the International Classification of Diseases, Tenth Revision, Clinical Modification and Procedure Coding System (ICD-10-CM/PCS) for quality measurement. As explained in the final report, *ICD-10 CM/PCS Coding Maintenance Operational Guidance* (October 2919, available at www.qualityforum.org/Publications/2010/10/ICD-10-CM/PCS_Coding_Maintenance_Operational_Guidance.aspx), this transition planned for 2013 has significant implications for measure developers, as the majority of NQF-endorsed measures are specified using ICD-9-CM codes.

Technical Infrastructure to Support Measurement Using an Electronic Platform

The American Recovery and Reinvestment Act of 2009 provides \$20 billion for investment in health IT and use of that technology to improve patient care. Health IT has the potential to lead to care that is safer, more effective, more affordable, and better coordinated. But to get there, electronic health records (EHRs) and other tools must capture the right data to support performance measurement, and performance measures must be specified to run on an electronic platform. NQF contributions in this area fall into four categories: 1) development of a Quality Data Model (QDM) that defines the data that must be captured in EHRs and personal health records to support quality measurement and improvement; 2) development of a standard form and an automated tool for measure developers to create eMeasures that can readily be incorporated into vendors’ health IT systems; 3) re-specification of 113 performance measures for use with EHRs (i.e., eMeasures); and 4) identification of the types of measures that might be used to ascertain whether EHRs are being used properly by clinicians and to detect any unintended consequences.

The QDM classifies and describes the information needed for quality measurement in a way that health IT vendors understand what data elements to capture (including the most reliable source of the data and the point in time in the care process when it should be recorded), and measure developers know how to specify eMeasures so they will pull the correct information from the EHR. Although the QDM was created in 2009, NQF’s Health Information Technology Advisory Committee made important enhancements covered under this contract, such as the development of a comprehensive framework for evolving the model that will accommodate the data needs of new types of measures

(e.g., measures of patient engagement in decision-making, long-term functional outcomes, measures that incorporate data on social determinants of health), and updates to data type definitions and elements. The NQF Clinical Decision Support (CDS) Expert Panel also developed a taxonomy of CDS rules and data elements that paves the way for CDS developers to use the QDM in specifying clinical decision support rules (see *Driving Quality and Performance Measurement—A Foundation for Clinical Decision Support* at www.qualityforum.org/Publications/2010/12/Driving_Quality_and_Performance_Measurement_-_A_Foundation_for_Clinical_Decision_Support.aspx).

To facilitate the specification of eMeasures in a standardized fashion concordant with the QDM, NQF developed a standardized eMeasure format to be used by the more than 50 measure developers. The QDM and eMeasure format taken together will yield important benefits in future years, such as:

- **REDUCED HEALTH IT COSTS:** Health IT vendors will be able to identify the data requirements for all the measures in the portfolio of NQF-endorsed measures and will be able to readily incorporate eMeasures from any measure developer in almost a “turnkey” fashion.
- **REDUCED MEASURE DEVELOPMENT, TESTING, AND MAINTENANCE COSTS:** Performance measures generally include common components, such as denominators, numerators, exclusions, and sometimes risk-adjustment algorithms. Measure developers may be able to share and reuse certain components of measures (e.g., code sets and rules for identifying patients with Type 2 diabetes on insulin).
- **MORE USEFUL PERFORMANCE INFORMATION:** When developers harmonize measures and make use of common definitions and conventions for specifying eMeasures, providers can readily

combine measures from different developers into their performance improvement initiatives without introducing “noise” into the performance results.

The eMeasure format now is being converted into a software tool known as the Measure Authoring Tool, which will be tested in 2011. NQF will provide training on using the tool to measure developers and others.

The foundational work on the QDM and the eMeasure format conducted in 2009 and 2010 under the contract was critical to the accomplishment of another important objective—the re-specification of 113 measures from paper-based format to eMeasure format. In response to an HHS request to develop eSpecifications for measures currently being used by HHS for public reporting, payment, quality improvement, or other purposes, NQF worked in coordination with the 18 developers of these measures to convert the measures from their current format into the eMeasure format. These eMeasures, along with detailed specifications, can be found on the NQF website at www.qualityforum.org/Projects/e-g/eMeasures/Electronic_Quality_Measures.aspx?section=PublicandMemberComment2011-02-012011-04-01. HHS is using many of the re-specified measures to assess meaningful use of health IT for purposes of awarding incentive payments in 2011.

The fourth and final area of NQF’s health IT work focused on answering the question, “How will we know if health IT is being properly used by clinicians to provide better care?” To achieve the full potential of health IT to enhance the safety, effectiveness, and affordability of care, clinicians must use the technology as intended. For example, reductions in medication errors will be achieved only if clinicians do not disable or ignore alerts for potential drug interactions. In the report *Driving Quality—A Health IT Assessment Framework for Measurement* (2010, available at www.qualityforum.org).

[org/Publications/2010/12/Driving_Quality_-_A_Health_IT_Assessment_Framework_for_Measurement.aspx](http://www.qualityforum.org/Publications/2010/12/Driving_Quality_-_A_Health_IT_Assessment_Framework_for_Measurement.aspx)), NQF identifies potential types of measures that might be developed and incorporated into EHRs to provide information on when and how the technology is being employed by front-line providers, which in turn can be used to determine if there is a need for more user-friendly interfaces, modifications in work flow, or clinician education and training programs. The report also identifies types of measures that, if incorporated into EHRs, would provide early warning signs of unintended consequences (e.g., selection of an inappropriate order set based on the patient's active diagnoses).

Measure Selection for Applications

Setting National Priorities and Goals serves as an important starting point for selecting measures, but for most applications there are additional considerations. In response to a request from the Office of the National Coordinator for Health IT (ONC), NQF prepared a “quick turnaround” report in the summer of 2010 to assist HHS leadership and the Health IT Policy Committee in identifying a parsimonious set of measures that might be used in 2013 to assess meaningful use of health IT. The NQF report *Identification of Potential 2013 e-Quality Measures* (August 2010, available at www.qualityforum.org/projects/i-m/meaningful_use/meaningful_use.aspx), finalized in August 2010, used the six national priorities identified by NPP as an organizing framework; proposed five criteria that have been utilized to identify measures in each priority area; and based on a review of measures in the NQF portfolio and an environmental scan of measures used by leading health systems, identified available measures that might be adapted for use in 2013 and beyond.

SUMMARY

This is an extraordinary period of challenges and opportunities for our country's healthcare system. Reforming the healthcare delivery system to provide care that is safe, effective, and affordable necessitates changes in the environment of care. As the Institute of Medicine noted a decade ago in its landmark report *Crossing the Quality Chasm*, public reporting, value-based payment, a national health information network, and programs for dissemination of knowledge and tools are key elements of creating an environment of care that enables and rewards improvement.

Fundamental building blocks for all of these efforts are a vigorous quality measurement enterprise including national priorities that focus our efforts on high-leverage areas with the greatest potential to produce better health and healthcare; the ability to measure, report, and reward performance results; and the ability to share best practices. Building such an enterprise is a shared responsibility of many stakeholders in the public and private sector. NQF is thankful for the opportunity to contribute.

Note

1. US Congress, *Patient Protection and Affordable Care Act of 2010* (PL 111-148), Washington, DC: US Government Printing Office; 2010. Available at www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf. Last accessed December 2010.

II. ABOUT THE NATIONAL QUALITY FORUM

NQF was created in 1999 as a national standard-setting organization for healthcare performance measures. NQF is governed by a Board of Directors that includes healthcare leaders from the public and private sectors, with a majority of its at-large seats held by consumers and those who purchase services on consumers' behalf. A multi-stakeholder organization, NQF's more than 430 members are organized into eight councils—consumers; purchasers; healthcare professionals; health plans; provider organizations; public/community health agencies; quality measurement, research, and quality improvement organizations; and suppliers and industry—thus drawing on the expertise and insight of every sector of the healthcare field.

In establishing national consensus standards, NQF adheres to the National Technology Transfer and Advancement Act of 1995 (PL 104-113)¹ and the Office of Management and Budget's formal definition of consensus.² NQF endorses performance measures, preferred practices, serious reportable events, and measurement frameworks through its formal Consensus Development Process (CDP),³ which provides for extensive multi-stakeholder input. The strict adherence to this CDP qualifies NQF as a voluntary consensus standards-setting organization, granting its endorsed measures special legal standing.

NQF Consensus Development Process

1. Call for Intent to Submit Candidate Standards
2. Call for Nominations
3. Call for Candidate Standards
4. Candidate Consensus Standard Review
5. Public and Member Comment
6. Member Voting
7. Consensus Standards Approval Committee (CSAC) Decision
8. Board Ratification
9. Appeals

The NQF portfolio of voluntary consensus standards includes performance measures, serious reportable events, and preferred practices (i.e., safe practices). A complete list of measures included in the NQF portfolio can be found at www.qualityforum.org/Measures_List.aspx. There are measures applicable to nearly all healthcare settings (e.g., ambulatory settings, hospitals, nursing homes, home health agencies, health systems) and types of clinicians (e.g., primary care providers, specialists). NQF uses a two-dimensional framework to organize the measures in its portfolio:

- **CROSS-CUTTING AREAS:** measures that affect all or most patients, such as safety, care coordination, and overuse; and
- **CLINICAL AREAS:** measures that apply to patients with specific conditions, such as diabetes, asthma, or congestive heart failure.

Approximately one-third of the measures in NQF's portfolio are measures of patient outcomes (e.g., mortality, readmissions, health functioning, depression screening tool that assesses emotional status and social engagement), or experience of care (e.g., satisfaction). Most of the remaining measures are measures of care processes that can be linked to better outcomes (e.g., medication reconciliation, annual eye and foot exam for patients with diabetes). Approximately 20 percent of endorsed measures relate to the important area of patient safety. The NQF-endorsed Safe Practices for Better Healthcare provide an evidence-based approach to improving patient safety.

The measures included in the NQF portfolio are owned or sponsored by 53 different stewards, which include: public agencies (e.g., the Centers for Medicare & Medicaid Services [CMS], the Agency for Healthcare Research and Quality), state and community entities (e.g., Minnesota Community

Measurement), professional societies (e.g., Physician Consortium for Performance Improvement convened by the American Medical Association, Society of Thoracic Surgeons), accrediting organizations (e.g., the National Committee for Quality Assurance, The Joint Commission), health plans, academic and research institutions, health systems, and others. The portfolio has become a rich resource for national, state, and community-level initiatives that seek the best performance measures to use in public reporting, payment, and quality improvement initiatives.

In recent years, NQF has worked closely with the Department of Health and Human Services (HHS) and measure stewards to re-specify performance measures for use with interoperable electronic health records (EHRs) and personal health records. To date, more than 110 measures have been “retooled.” HHS currently uses these measures for activities including “meaningful use” measurement in the Electronic Health Records Incentive Programs, the Medicare Hospital Compare public reporting program, and in various value-based payment programs. NQF has encouraged measure stewards to adopt common conventions in specifying eMeasures and in identifying the types of data that must be captured in electronic health records to support quality measurement and improvement.

In addition to its role as a standard-setting body, NQF also serves as the neutral convener of two national multi-stakeholder partnerships. The National Priorities Partnership (NPP) was established in 2007 to set national priorities and goals for performance improvement and released its first report shortly thereafter identifying the six original major priority areas: 1) patient and family engagement, 2) population health, 3) patient safety, 4) care coordination, 5) palliative and end-of-life care, and 6) overuse. NPP currently consists of 42 leading private-sector organizations—including consumers, purchasers, health plans, providers, health

professionals, accreditation/certification bodies—and six federal agencies. These NPP leaders have worked closely over the past three years to identify priorities for healthcare quality improvement and to engage a broad group of stakeholders in coalescing around these priorities to drive change. In September 2010, in response to a request from HHS, NPP provided input regarding priorities for the 2011 HHS National Quality Strategy.⁴ A second multi-stakeholder partnership is the Measure Applications Partnership (MAP). This very new group, still in the formative stages, will be convened for the first time in 2011 to provide input to HHS on the selection of measures for use in various public reporting and payment programs.

In recent years, NQF also has enhanced its health information technology portfolio to contribute to the creation of an interoperable electronic infrastructure that supports quality measurement and improvement. This began with NQF’s construction of the Quality Data Model (QDM), a classification system that describes clinical and other information used for quality measurement and provides a standardized terminology to be used in constructing eMeasures. NQF also is working on a Measure Authoring Tool to help measure developers build eMeasures.

Notes

1. US Congress, National Technology Transfer and Advancement Act of 1995 (PL 104-113), Washington, DC: US Government Printing Office, 1995. Available at http://standards.gov/standards_gov/ntta.cfm. Last accessed December 2010.
2. The White House, U.S. Office of Management and Budget. *Circular No. A-119, February 10, 1998*, Washington, DC: US Office of Management and Budget, 1998. Available at www.whitehouse.gov/omb/circulars_a119/. Last accessed December 2010.
3. National Quality Forum (NQF), *NQF Consensus Development Process*, v. 1.8. Available at www.qualityforum.org/Measuring_Performance/Consensus_Development_Process.aspx. Last accessed December 2010.
4. National Priorities Partnership. *Input to the Secretary of Health and Human Services on Priorities for the 2011 National Quality Strategy*. Washington, DC: NQF; 2010. Available online at www.nationalprioritiespartnership.org/uploadedFiles/NPP/Non-Partners/Newsletters/NPP%20Input%20to%20HHS%20on%20Priorities%20for%202011%20National%20Quality%20Strategy_Final%20Report%282%29.pdf. Last accessed February 2011.

III. ABOUT THE CONTRACT

The Medicare Improvements for Patients and Providers Act of 2008 (PL 110-275) is a wide-ranging law that addresses many aspects of Medicare and Medicaid, including the addition of new benefits for Medicare beneficiaries. Among other things, the Act directs the Secretary of HHS to contract with a consensus-based entity for certain activities relating to healthcare performance measurement.

On January 14, 2009, NQF was awarded a contract, HHSM-500-2009-00010C, under the Act's Section 183. This contract is administered by HHS's Office of the Assistant Secretary for Planning and Evaluation (ASPE), which provides strategic leadership and technical and management oversight for the contract, and by CMS, which provides technical input and operational support. The contract provided up to \$10 million for the first year after award, with the option for three \$10 million annual renewals through 2012. It calls for NQF to:

- develop a prioritized list of conditions that impose a heavy health burden on beneficiaries and account for significant costs;
- identify and endorse measures that various stakeholders can use to assess and improve the care provided to beneficiaries with these conditions, and the performance of providers in various healthcare settings;
- identify programs to track and disseminate measures;
- ensure performance measures are regularly and appropriately updated and remain relevant for public reporting and improvement;

- promote the use of EHRs for performance measurement, reporting, and improvement; and
- report annually to Congress on the status of the project and progress to date.

This contract had the effect of providing a mandate and stable funding to NQF, granting the organization a source of core funding to pursue this important work in a coordinated, strategic manner. While the work conducted under the contract is intended specifically to benefit all those served by HHS programs, it will have the salutary additional benefit of improving care for all Americans. The work being conducted under this contract directly relates to NQF's core competencies in three areas:

- **BUILDING CONSENSUS ON NATIONAL PRIORITIES AND GOALS:** NQF has convened leaders from major stakeholder groups and through this process has identified National Priorities and Goals for Performance Improvement. This work provides a foundation for the priority-setting efforts under this contract, which focus on clinical conditions. The priorities identification work served as a guide for measure gap analysis and informs work going forward that will result in a harmonized portfolio of high-leverage measures.
- **ENDORISING PERFORMANCE MEASURES:** NQF has endorsed more than 625 performance measures and preferred practices under its formal CDP, granting those measures and practices special legal standing as voluntary consensus standards, working toward a goal of achieving a comprehensive yet parsimonious set of performance measures that map to national priorities and fill critical gaps.

- **FACILITATING THE DEVELOPMENT OF PERFORMANCE MEASURES SPECIFIED FOR USE WITH ELECTRONIC HEALTH RECORDS AND PERSONAL HEALTH RECORDS, REFERRED TO AS eMEASURES:** NQF has worked to identify the types of information that need to be included in an EHR to enable electronic reporting on quality metrics and has coordinated the efforts of measure developers to retool 113 measures for use on an electronic platform.

Under the contract, HHS asked that performance measures focus on “outcomes and efficiencies that matter to patients, align with electronic collection at the front end of care, encompass episodes of care when possible, and will be attributable to providers where possible.”

The work under this contract is divided into 13 tasks. Six of the tasks are procedural—involving an opening meeting, the development of a work plan, the development and implementation of a quality assurance Internal Evaluation Plan, weekly conference calls, monthly progress reports, and the creation of this annual report. The remaining seven call for specific deliverables and are the focus of this report.

TASK 6 is the formulation of a national strategy and priorities for healthcare performance measurement.

TASK 7 is the implementation of a consensus process for endorsing healthcare quality measures. This task includes an evaluation of NQF’s consensus development process and the conduct of endorsement projects focusing on known measure gap areas. **TASK 8** is the maintenance of previously endorsed NQF measures. **TASK 9** is the promotion of EHRs. **TASK 11** is the development of a public website for project documents. **TASK 12** calls for measure development, harmonization, and endorsement efforts to fill critical gaps in performance measurement. In 2010, Congress passed the Patient Protection and Affordable Care Act of 2010 (PL 111-148), which directed HHS to contract with a consensus-based entity to provide multi-stakeholder input into the National Quality Strategy, as well as the selection of measures for use in various programs by CMS and, potentially, other federal agencies. This contract was modified to perform additional work under Section 3014 of the Affordable Care Act. That work, **TASK 13**, was the convening of the NPP to advise the Secretary of HHS on the development of the National Quality Strategy.

Details of work performed under the HHS contract in each of these tasks are found in Section IV of this report.

IV. HHS-FUNDED WORK

This section describes details of work performed under each task according to the HHS contract in 2010. Appendix A is a summary of the accomplishments under the contract. Appendix C is a list of all final reports produced with links to where they can be found on the NQF website.

NATIONAL STRATEGY AND PRIORITIES (TASK 6)

Forming a strategy and setting priorities for performance improvement is crucial to focusing resources on areas that will produce the greatest improvements in terms of better health and healthcare. In 2007, NQF convened NPP, co-chaired by Margaret O’Kane, president of the National Committee for Quality Assurance, and Bernard Rosof, MD, chair of the Physician Consortium for Performance Improvement convened by the American Medical Association. In work predating this contract, NPP identified six priorities as those with the greatest potential to eradicate disparities, reduce harm, and remove waste from the American healthcare system. In its recent report to the Secretary, NPP added two additional priorities. (*See Task 13.*)

Building upon this foundation, in work funded under this contract, NQF undertook the following projects:

- prioritizing high-impact Medicare conditions and associated measure gaps (Task 6.0);
- setting a national measure development and endorsement agenda (Task 6.2);
- analyzing measures targeted under the Meaningful Use portion of the Medicare Electronic Health Record Incentive Program, specifically examining how health IT tools can improve the efficiency, quality, and safety of healthcare delivery (Task 6.4);
- investigating the use of NQF-endorsed measures (Task 6.1); and
- analyzing measures being used to gauge quality of care for people with multiple chronic conditions (Task 6.3).

Prioritization of Medicare High-Impact Conditions

In May 2010, NQF published *Prioritization of High-Impact Medicare Conditions and Measure Gaps*.¹ This report was based on the work of NQF’s Measure Prioritization Advisory Committee, which prioritized the top 20 high-impact Medicare conditions² that account for more than 90 percent of Medicare costs (*see below*). The committee considered multiple dimensions in its analysis, including: cost; prevalence; the

Prioritized List of 20 High-Impact Medicare Conditions*

1) Major depression	6) Alzheimer’s disease	11) Hip/pelvic fracture	15) Atrial fibrillation
2) Congestive heart failure	7) Breast cancer	12) Chronic renal disease	16) Lung cancer
3) Ischemic heart disease	8) Chronic obstructive pulmonary disease	13) Prostate cancer	17) Cataract
4) Diabetes	9) Acute myocardial infarction	14) Rheumatoid arthritis/osteoarthritis	18) Osteoporosis
5) Stroke/transient ischemic attack	10) Colorectal cancer		19) Glaucoma
			20) Endometrial cancer

* As determined by NQF Measure Prioritization Advisory Committee under contract to HHS.

potential for improving quality, efficiency, and patient-centeredness; the potential for reducing overuse and waste; variability in provider performance and care delivery; and disparities. In related work under this contract, NQF is endorsing outcome measures for these 20 high-impact conditions. (See *Task 7.1*.)

Measure Development and Endorsement Agenda

The work on prioritization of conditions fed directly into a related project under this task—the creation of a measure development and endorsement agenda. This prioritization project provides guidance on how best to invest measure development resources and will assist NQF in helping the portfolio of endorsed measures evolve to be most useful for public reporting, performance-based payment, and quality improvement.

The Measure Prioritization Advisory Committee considered the performance measure needs of Medicare, child health, and population health. Key objectives included alignment with the measures needed for new approaches to public reporting and payment in the Affordable Care Act and for the meaningful use provisions in the American Recovery and Reinvestment Act of 2009 (PL 111-5). The Measure Prioritization Advisory Committee considered the following: priorities for improvement previously identified by NPP; priorities identified by measure developers; key areas identified during health information technology meaningful use deliberations; disparities-sensitive measure gaps; and gaps identified during previous NQF endorsement activities. The final report, *Measure Development and Endorsement Agenda* (published in January 2011 and available at www.qualityforum.org/MeasureDevelopmentandEndorsementAgenda.aspx#t=2&s=3p=4%7C), provides prioritized lists of measure gaps in eight areas:

- resource use/overuse,
- care coordination and management,
- health status,

- safety processes and outcomes,
- patient and family engagement,
- system infrastructure supports,
- population health, and
- palliative care.

Measures for Meaningful Use

In spring 2010, HHS's Office of the National Coordinator for Health Information Technology (ONC) requested a rapid analysis of the types of measures that might be selected to assess meaningful use of health information technology (health IT) in 2013 and a preliminary scan of whether such measures currently are available or could be developed, tested, and endorsed within the requisite timeframe. This project, which became Task 6.4 under the HHS contract, provided a framework for considering various types of measures and an inventory of available EHR-based measures from leading sources. A report, *Identification of Potential 2013 e-Quality Measures*, which was published in August 2010, used the six national priorities identified by NPP as an organizing framework; proposed five criteria that the Health IT Policy Committee and HHS leadership could use to identify a parsimonious set of measures in each priority area; and, based on a review of measures in the NQF portfolio and an environmental scan of measures used by leading health systems, identified available measures that might be adapted for use in 2013. The report also identified potential methodological issues that need to be addressed before further measure adaptation or *de novo* measure development.

NQF also began two projects under this task order that are currently in process: measure use evaluation (Task 6.1) and the development of an endorsed performance measurement framework for patients with multiple chronic conditions (Task 6.3). For evaluating uses of NQF-endorsed measures, NQF has engaged RAND to conduct an independent, third-party assessment on uptake of endorsed measures for such purposes as

payment, public reporting, quality improvement, and accreditation/certification, as well as to examine success factors and implementation barriers. To support the development of a performance measurement framework for patients with multiple chronic conditions, NQF is in the process of engaging researchers to draft a white paper highlighting key measurement-related issues for these patients. A multi-stakeholder committee will consider that input and recommend a measurement framework. The framework will inform future work pertaining to the endorsement of measures of performance for patients with multiple chronic conditions.

IMPLEMENTATION OF A CONSENSUS PROCESS FOR THE ENDORSEMENT OF QUALITY MEASURES (TASK 7)

Valid, meaningful measures of performance make it possible to gauge the quality of healthcare and focus quality improvement efforts by helping identify what is working and what needs additional improvement. Stakeholder-based endorsement of performance measures via a formal endorsement process has long been NQF's stock in trade. This task involves both a formal evaluation of the endorsement process and a set of consensus projects focused on known measure gap areas.

In the past year, NQF has engaged in several HHS-funded measure endorsement projects and related projects. These have included:

- measures of performance on healthcare outcomes (Task 7.1);
- measures of patient safety and other projects specifically related to patient safety (Task 7.3);
- measures of performance on palliative care (Task 7.4);
- measures of performance in nursing homes (Task 7.5);
- an evaluation of NQF's consensus development process, with an eye toward making the process more efficient and user friendly (Task 7.6); and
- measures of performance of care delivered to children (Task 7.8).

Outcome Measures Project

NQF's outcome measures project focused on areas with the greatest potential impact, including common conditions, gaps in measurement of patient-focused outcomes, and transitions across care settings. The first two cycles of this three-cycle project concentrated on the Medicare 20 high-impact conditions list, while the third cycle focused on child and mental health. A significant amount of this work has been completed, resulting in the endorsement of 35 outcome measures.

Outcome Measures Endorsed as a Result of the HHS Contract

CROSS CUTTING AREA	NUMBER OF MEASURES
Care Coordination	6
Functional Status	2
Healthcare System (readmissions, length of stay)	3
Patient Experience and Engagement	2
Safety (complications, adverse events)	18
Social Determinants	4

Patient Safety

Under the HHS contract in 2010-2011, NQF engaged in four significant patient safety activities:

- **SERIOUS REPORTABLE EVENTS IN HEALTHCARE:** NQF's work in this area dates from 2002, when it published its first report listing 27 events that are avoidable and have serious consequences for patients. The project's objective was to establish consensus among consumers, providers, purchasers, researchers, and other healthcare stakeholders about those preventable adverse events that should not occur and to define them in a way

that, should they occur, it would be clear what had to be reported. This report was updated in 2006, with one additional event being added. *Serious Reportable Events* has become the foundation of HHS's program of denial of payment for certain hospital-acquired conditions and for many state-based adverse event reporting initiatives. Under the HHS contract, NQF is reviewing the *Serious Reportable Events*, which originally focused on the hospital setting, with an eye toward expanding the list of events and their reach to three new environments of care: ambulatory practice settings (specifically, office-based physician practices); long-term care settings (specifically, skilled nursing facilities); and office-based surgery centers. The list of events also is being expanded to include events that are "largely preventable" in addition to those that are entirely preventable. The public comment period for the 29 updated and proposed new *Serious Reportable Events* has closed, and NQF expects to finalize its revision in spring 2011.

- **PATIENT SAFETY MEASURES:** Currently a multiphase project is underway to identify and endorse patient safety measures. These include measures on medication safety and preventing healthcare-associated infections. Final endorsement of these measures and completion of this project are slated for spring 2011.
- **PUBLIC REPORTING FRAMEWORK FOR PATIENT SAFETY:** Under the HHS contract, NQF in 2010 completed a consensus development project that resulted in the endorsement of a framework for public reporting of patient safety event information. The intention is for reporting entities to use this framework, *National Voluntary Consensus Standards for Public Reporting of Patient Safety Event Information*, to create a more uniform approach to public reporting.

■ IMPROVING PATIENT SAFETY THROUGH

STATE-BASED REPORTING IN HEALTHCARE:

To date, 26 states and the District of Columbia have enacted reporting systems to help practitioners identify and learn from major adverse events. The majority of those states incorporate at least some portion of the NQF list of *Serious Reportable Events* to help establish a more uniform set of criteria by which to report. There remains incongruity among states, however, in the use, implementation approaches, and perspectives toward reporting a variety of patient safety events and, in turn, efforts for improving adverse outcomes from these events. Under the contract, NQF has developed an ongoing effort to engage representatives of states with reporting systems to facilitate communication and inform NQF about successes, barriers, and unintended consequences within adverse event reporting at the state level, including use of NQF's *Serious Reportable Events*.

Palliative Care

Hospice and palliative care services offer physical, emotional, and spiritual care to patients coping with severe or end-of-life illnesses. These programs also help coordinate care of multiple specialists to ensure pain is alleviated and help patients and their families make difficult decisions regarding treatment goals. Unfortunately, more than 1 million people die each year without ever having access to these important services. Many of those lacking adequate access will endure prolonged and needless suffering and ineffective treatments.

In 2006, NQF endorsed a framework and preferred practices for palliative and hospice care quality.³ NPP has identified palliative care as a priority area for national action. In 2010, NQF began planning for a project that would seek to endorse performance measures to gauge the quality of palliative and end-of-life care. This project is slated to begin in early 2011.

Nursing Homes

NQF was an early pioneer in advancing measures of nursing home care quality, endorsing an initial set of performance measures in this area in 2004.⁴ Building on this work, in 2009 NQF initiated a project to consider additional performance measures for chronic and post-acute care nursing facilities. The measures evaluated were intended to provide tools for regulators, purchasers, and consumers to evaluate the quality of care in these facilities, as well as metrics facilities can use to assess and improve the quality of care they provide. As a result of this project, 21 measures were endorsed. These measures evaluate the resident's physical and clinical conditions and abilities, as well as preferences and life care wishes. Appendix B provides information on these measures.

Evaluation of the Consensus Development Process

NQF uses its formal endorsement process to evaluate and endorse consensus standards, including performance measures, preferred practices, frameworks, and reporting guidelines. The process is designed to call for input and carefully consider the interests of stakeholder groups from across the healthcare industry. (*For details on how the process works, please see Appendix G.*) Because NQF uses this formal process, it is recognized as a voluntary consensus standards-setting organization as defined by the National Technology Transfer and Advancement Act of 1995 and Office of Management and Budget Circular A-119.

Just as NQF asks the healthcare system to measure, report, monitor, and constantly improve, the organization expects constant improvement of its own systems, policies, and processes. Thus, under the HHS contract in 2010, NQF engaged subcontractor Mathematica Policy Research, Inc., to evaluate its consensus process. This comprehensive analysis included a technical process analysis, stakeholder analysis, and scan of

comparative alternatives. The reviewers found that the NQF consensus process is generally well regarded among its stakeholders; nevertheless, they did suggest specific refinements of the process's timeliness, efficiency, and effectiveness. The final report, *Assessment of the National Quality Forum's Consensus Development Process*, was submitted to NQF in December. In response to the recommendations, NQF already has identified some refinements to the process as described in *NQF Consensus Development Process 2010—A Year in Review* and is considering how to refine its consensus process further.

Child Health Measures

Child health quality is an important, underemphasized area of measure development and endorsement. To date, NQF has endorsed more than 70 pediatric and perinatal measures, with emphasis in the areas of perinatal and neonatal care, chronic illness care, and care for hospitalized children. However, the need for child health quality measures has outpaced the number of available endorsed measures. The recent release of an initial core set of measures for Medicaid and CHIP (Children's Health Insurance Program) voluntary use provides an important step in assessing child health quality by state programs. The Agency for Healthcare Research and Quality National Advisory Council Subcommittee on Children's Healthcare Quality Measures for Medicaid and CHIP Programs (AHRQ SNAC) has identified a number of child health priority areas without adequate measures, including mental health and substance abuse services, other specialty services, and inpatient care.

To assist in these efforts, NQF has embarked on a consensus project to endorse additional measures of child health quality in a project that will complement the AHRQ SNAC collaboration with CMS, CHIP, and Survey and Certification. While the initial core set of Children's Health Insurance Program Reauthorization

Act (CHIPRA) measures will be specified by the Secretary of HHS, there may be other appropriate measures that could enhance the portfolio of child health quality measures and could be used in the future for the pediatric quality measurement program as required by CHIPRA. NQF's current project in this area targets measures that could be used in public reporting at the population level (e.g., state) and for certain conditions or cross-cutting areas applicable to the Medicaid population. This project is expected to be completed in summer 2011.

MAINTENANCE OF PREVIOUSLY ENDORSED NQF MEASURES (TASK 8)

NQF endorsed its first performance measures in 2001. Since then, much has changed about healthcare, performance measurement, the technologies supporting patient care and documentation (which enable performance measurement and reporting), and the NQF endorsement process itself. The science supporting quality measurement and medicine itself is rapidly evolving, and, of particular note, the science and technology of care delivery have changed. It is critically important that NQF keep pace with these changes. Simply put, it is unreasonable and counterproductive to all parties to gauge performance based on anything other than the most up-to-date, best-in-class measures.

NQF has endorsed more than 625 measures. Ensuring these measures remain up to date—a process known as “measure maintenance”—is a time-consuming and resource-intensive task, but a necessary one. Endorsed measures must be re-evaluated against NQF's measure evaluation criteria⁵ and reviewed alongside newly submitted (but not yet endorsed) measures. This head-to-head comparison of new and previously endorsed measures fosters harmonization (*please see Task 12.2 for a description of harmonization*) and helps ensure NQF is endorsing the best available measures.

NQF Measure Maintenance Cycles

CYCLE A 1	CYCLE B 1	CYCLE C 1
Cardiovascular-1	Cancer	Healthcare infrastructure
Surgery-1	Pulmonary/critical care	HEENT
Prevention	Safety-1	Infectious disease
Cardiovascular-2	Disparities	Neurology
Surgery-2	Palliative and end-of-life care	Patient experience and engagement
Endocrine	Perinatal	Functional status
GU/GYN	Renal	GI
Mental health	Care coordination	
Musculoskeletal	Safety-2	

Under the HHS contract in 2010, NQF finalized a process for the systematic, complete maintenance of all of its endorsed measures. This process involves reviewing all endorsed measures across 22 topic areas every three years. The numbers of topic areas and measures are subject to change in the future depending on the type and volume of new measures received in upcoming projects. NQF also began work using this new endorsement maintenance process on two major areas for measure maintenance: cardiovascular and surgery measures. These projects are scheduled for completion later in 2011.

PROMOTION OF ELECTRONIC HEALTH RECORDS (TASK 9)

The opportunity to improve healthcare through health IT has never been greater. The American Recovery and Reinvestment Act of 2009 provides a \$20 billion mandate to ensure health IT plays a central role in transforming care through the EHR Incentive Program and its meaningful use provisions, while the Affordable Care Act ensures that performance measures, supported by an electronic infrastructure, drive a national

strategy for quality improvement. Health IT will help ensure care is safer, more affordable, and better coordinated. But to get there, a common language among systems is necessary, and EHRs and other tools must capture the right data to support performance measurement. This will give actionable data to providers, patients, and others working to improve quality.

NQF's health IT portfolio supports the creation of this electronic infrastructure. In 2010-2011 under the HHS

contract, NQF undertook several projects in health IT, including:

- the development of a measure authoring tool (Task 9.1);
- the convening of a Clinical Decision Support Expert Panel (Task 9.2);
- maintenance of its previously developed Quality Data Model (Task 9.5);
- the convening of a Health IT Utilization Expert Panel (Task 9.6);
- measure retooling for EHRs (Task 9.7); and
- the convening of an eMeasure Format Review Panel (Task 9.8).

NQF and Health IT: Putting It in Context

To understand NQF's accomplishments in health IT in 2010-2011, it is important to understand two projects that NQF previously completed in this area:

1. **The Quality Data Model (QDM, formerly known as the Quality Data Set, or QDS):** The QDM, developed by NQF's Health Information Technology Expert Panel (HITEP), is a set of data elements or types of data elements that can be used as the basis for developing harmonized and machine-computable performance measures. It is a classification system that describes clinical quality information so that it may be shared for quality measurement, clinical research, and public health, all of which repurpose information recorded during clinical care. As the QDM is applied to new measures, measure retooling efforts, and supporting EHR use, the model will evolve, requiring oversight and expert advice. The QDM provides direction to measure developers, EHR vendors, and other stakeholders on how to define quality terminology without ambiguity. Although the QDM was developed under an earlier grant from the Agency for Healthcare Research and Quality, its implementation is covered under the current HHS contract. For more information about the QDM, please visit www.qualityforum.org/Projects/h/QDS_Model/Quality_Data_Model.aspx.
2. **The "eMeasure":** The eMeasure is the electronic format for representing a performance measure in a machine-readable electronic format. Through standardization of a measure's structure, metadata, definitions, and logic, the eMeasure provides quality measure consistency and unambiguous interpretation. The eMeasure is becoming part of NQF's measure submission, endorsement, and maintenance requirements. This work was performed in 2009-2010 under the HHS contract as Task 9.3.

Measure Authoring Tool

Under the HHS contract, NQF is sponsoring the development of a software tool that measure developers will use to create the eMeasure. The tool will be web based, easy to use, and maintained over time for use in NQF's measure submission process. It will allow a measure developer, knowing clinical concepts, to enter information into the tool and come out with a standard healthcare quality measure format in what is known as Extensible Markup Language, or XML, that any EHR can implement. NQF has engaged a subcontractor, the Iowa Foundation for Medical Care, to develop this tool. It is anticipated that the measure authoring tool will be available for public use by late 2011.

Clinical Decision Support Expert Panel

Properly positioned within an EHR system, clinical decision support (CDS) tools can play an important role in matching patient information with relevant clinical knowledge, thereby helping clinicians incorporate that knowledge into decision-making. CDS is an essential capability of health IT systems; however, a common classification or taxonomy is necessary to enable system developers, system implementers, and the quality improvement community to develop tools, content, and policies that are compatible and support CDS features

and functions. In 2010, under the HHS contract, NQF convened an Expert Panel with expertise in CDS and performance measurement. The members of the panel assisted in identifying best practices and reducing duplicative or uncoordinated efforts. In December, the panel published the report *Driving Quality and Performance Measurement—A Foundation for Clinical Decision Support*, featuring a taxonomy for CDS that represents CDS rules and elements, while ensuring concordance with the Quality Data Model (QDM).

Quality Data Model Maintenance

The QDM is a model of presenting information that allows measure developers to express what they want to say, or what information they want to pull from a health record, in a way that EHRs can understand. To ensure the value and use of the QDM, NQF will enhance it periodically in response to evolving needs for performance measurement. While the QDM was created under a separate contract, its maintenance and revision is covered under the HHS contract. The QDM Version 2.1 is the most current, containing updates to QDM data type definitions as well as additional elements updates, based on comments received on the QDM Version 2 in July 2010. The next version of the QDM will be posted for public comment in spring 2011, following a semi-annual update schedule.

Health IT Utilization Expert Panel

Proper use of health IT (e.g., EHRs, personal health records) and its core features and functions is essential to improving quality of care. However, health IT also can have unintended consequences and introduce safety hazards (e.g., wrong drug chosen due to proximity on the screen to another drug, problem list fails to show all problems). Thus, in 2010, under the HHS contract, NQF convened an expert panel to examine the information needed to measure effective health IT use in order to understand better how health IT tools can improve the efficiency, quality, and safety of healthcare

delivery. The panel created a model to measure health IT use, establishing a taxonomy of different types of performance measures that might be developed to assess whether health IT is being used properly by clinicians and others, including assessing whether decision support tools are being used effectively and methods of detecting hazards. The project also identified methods of testing health IT utilization measures and type and level of evidence necessary to support endorsement and will provide guidance pertaining to system certification requirements. The panel published its report, *Driving Quality—A Health IT Assessment*, in December 2010.

Measure Retooling for EHRs

At the request of HHS, NQF in 2010 managed the conversion, or “retooling,” of a set of 113 measures from their paper-based format to the eMeasure format, working in coordination with their original 18 developers. These NQF-endorsed quality measures needed to be converted so that the data elements are defined using the eMeasure format and in the context of EHR usage. The goal is to measure quality directly out of EHRs. These measures, a mix of inpatient and ambulatory measures, were chosen by HHS for retooling for potential inclusion in the CMS EHR Incentive Program. The 113 measures, along with detailed eSpecifications, eMeasure code list descriptors, and a guide to how to view and interpret an electronic measure, can be found on the NQF website at www.qualityforum.org/Projects/e-g/eMeasures/Electronic_Quality_Measures.aspx.

The first 44 measures produced were included in the July 2010 Meaningful Use Stage 1 measures. The project included a complete review of efforts required to convert paper-based measures to eMeasure format, including use of the QDM and guidance on how to present logic and timing for each element in a standard manner. NQF incorporated feedback from a large number of public comments in the model used for the final product delivered to HHS. The information

learned also was incorporated into the measure authoring tool software development effort. This project was completed under the HHS contract in 2010.

eMeasure Format Review Panel

Closely related to the measure retooling project, NQF in 2010 under the HHS contract convened a body of experts to participate in a panel to conduct a transparent and thorough review of the retooled measures. This panel will oversee an eMeasure review process to evaluate the specifications (structure) and intent (content) of retooled measures. This evaluation ensures that a measure's intent remains intact for continued NQF endorsement. The review panel's work is ongoing.

DEVELOPMENT OF A PUBLIC WEBSITE (TASK 11)

The HHS contract provided funding for NQF to revamp and maintain its website, www.qualityforum.org, to allow measure developers, members, and the public easier access to relevant documents.

Under the HHS contract, NQF in 2010 substantially overhauled its website, developing and maintaining content and supporting materials for numerous HHS-supported consensus development projects and other tasks, and adding web analytics to make it easier to determine the actual needs of public consumers seeking information about NQF projects. To facilitate access to endorsed measures, NQF has established a measures database that will be considerably enhanced in 2011 with more advanced search capabilities. NQF also has streamlined its web submission forms to reduce time to process items, created a new health IT content area to reflect the health IT work conducted under this contract, and created commenting tools that allow for open-ended or guided public comments. The website now features a content management system with an online measure submission form, an online public and

member comment capability, and online voting platform for members. Important pages on the website include:

- a page containing all MIPPA-funded consensus development activity, www.qualityforum.org/Projects.aspx;
- a home for all of its health IT activity, [www.qualityforum.org/Topics/Health_Information_Technology_\(HIT\).aspx](http://www.qualityforum.org/Topics/Health_Information_Technology_(HIT).aspx); and
- an online measure submission form, which can be accessed through www.qualityforum.org/Measuring_Performance/Submitting_Standards.aspx.

Further enhancements planned for 2011 include integrating the Measure Authoring Tool to allow seamless access to measure developers needing to develop eMeasures.

MEASURE DEVELOPMENT, HARMONIZATION, AND ENDORSEMENT TO FILL GAPS (TASK 12)

The HHS contract provides for measure development and related activities to fill immediate areas of need that HHS has identified. In 2010, HHS requested work in four areas:

- efficiency and resource use (Task 12.1);
- measure harmonization (Task 12.2);
- ICD-10 conversion guidance (Task 12.3); and
- emergency regionalization (Task 12.5).

Efficiency and Resource Use

Under the HHS contract, NQF in 2010 conducted two projects related to efficiency. The first focuses on endorsing measures of imaging efficiency, noting that Medicare spends approximately \$14 billion annually on outpatient imaging studies.⁶ At the close of the reporting period, NQF had sent six imaging efficiency measures to the Board for ratification. (All were subsequently endorsed shortly after the close of the

reporting period.) The second project was a white paper on resource use measures, which was posted for public comment in the fall of 2010. This draft white paper, now being revised to respond to HHS and public input, will inform a consensus development project, ongoing in 2011, that will endorse a set of resource use measures to gauge the cost of healthcare services provided.

Harmonization

The current quality landscape includes many quality reporting initiatives and measure developers, as well as a proliferation of measures. Separate quality initiatives—focusing on different settings and patient populations—often lead to duplicative or overlapping measures. Multiple measures with varying specifications that have essentially the same focus can create confusion in choosing measures for implementation, while differences in measure specifications limit comparability and understanding of measure results across settings or patient populations. Thus, it is necessary to adopt more global, “harmonized” quality measures in all settings.

In 2010, under the HHS contract, NQF convened a Steering Committee to develop operational guidance for achieving harmonization within future NQF consensus development projects. The final project report, *Guidance for Measure Harmonization*, was completed in January 2011.

ICD-10 Conversion

In 2013, one of the code sets that HHS uses to classify healthcare will be upgraded. This transition from the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes to the International Classification of Diseases, Tenth Revision, Clinical Modification and Procedure Coding System (ICD-10-CM/PCS) has implications for quality measurement because a majority of the diagnoses used to define NQF-endorsed measures are specified using ICD-9-CM codes.

To prepare for this major transition, NQF examined the implications for its measure maintenance procedures and analyzed the impact of code transitions for the measurement community, particularly measure developers, as the healthcare field begins to shape processes to accommodate the necessary measure updates. In October 2010, NQF published a report, *ICD-10-CM/PCS Coding Maintenance Operational Guidance*, detailing a series of recommendations to assist measure developers and NQF in this transition to ICD-10.

Emergency Regionalization

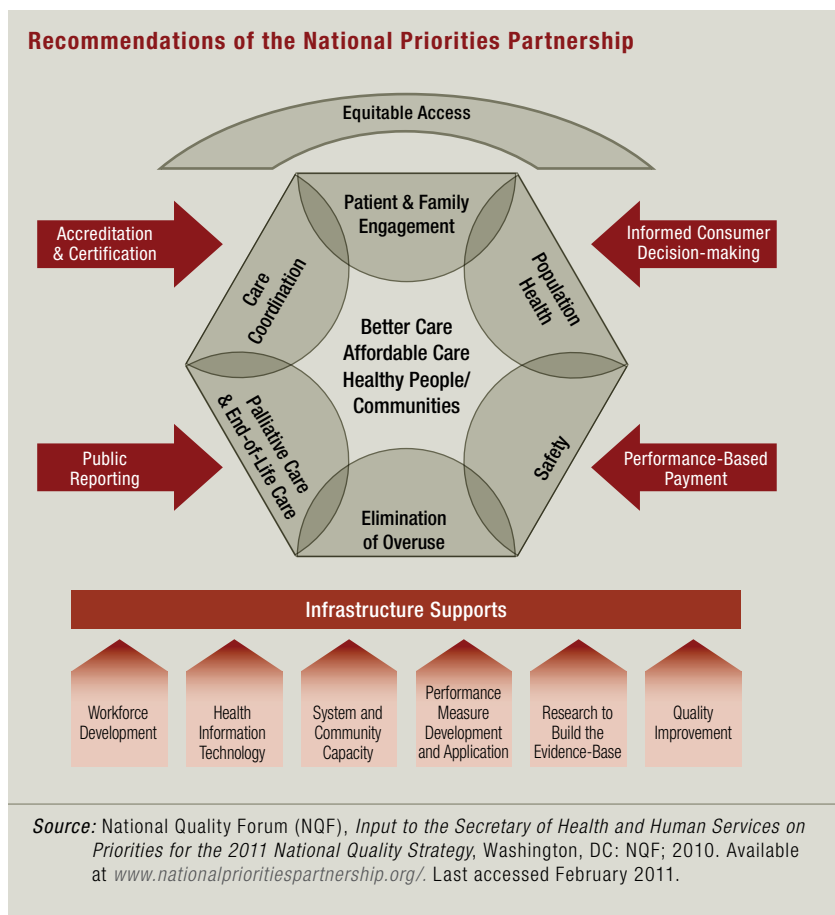
Regionalizing emergency medical care services—i.e., directing patients to emergency facilities with optimal capabilities for a given type of illness or injury in order to coordinate emergency care across a region—is one policy option for improving care while making more efficient use of medical resources. Under the HHS contract, NQF has undertaken a project to identify quality measures already in place and identify gaps in the measurement of regionalized emergency medical care services that must be filled if one is to provide a detailed picture of the utilization and quality of emergency services at the national, state, and regional levels. The first phase of this work, conducting an environmental scan of existing projects and performance measures and developing a framework to guide measure development and identify gaps as well as points of leverage for regionalization of emergency medical services, was begun in late 2010 and is expected to be completed in early 2012.

RECOMMENDATIONS ON THE NATIONAL QUALITY STRATEGY (TASK 13)

The Affordable Care Act, which became law March 23, 2010, calls for HHS to establish a National Health Care Quality Strategy that will integrate multiple public- and private-sector quality improvement initiatives. This strategy will ultimately include a comprehensive strategic plan and the identification of priorities to improve the

delivery of healthcare services, patient health outcomes, and population health. In September 2010, the HHS-NQF contract was modified to comply with Section 3014 of the Affordable Care Act, which requires the Secretary of HHS to consult with a consensus-based entity to convene a multi-stakeholder group to provide input on national priorities for improvement in population health and in the delivery of health care services for consideration under the National Quality Strategy. NQF convened the National Priorities Partnership to accomplish this project, which became Task 13 under the HHS contract.

In October 2010, NPP submitted its report to HHS, identifying eight priority areas for national action. These include the original six priorities that the NPP identified in 2008—patient and family engagement, population health, safety, care coordination, palliative and end-of-life care, and overuse—and the addition of two areas of focus: equitable access to ensure that all patients have access to affordable, timely, and high-quality care; and infrastructure supports (e.g., health IT) to address underlying system changes that will be necessary to attain the goals of the other priority areas. NPP also offered aspirational and actionable goals to be achieved over the next three to five years for each priority area.



Notes

1. NQF, *Prioritization of High-Impact Medicare Conditions and Measure Gaps*, Washington, DC: NQF; 2010.
2. The list of the top 20 high-impact Medicare conditions was provided to NQF by HHS as those conditions that account for 95 percent of Medicare costs based on an analysis of claims in CMS's *Chronic Conditions Warehouse*. Available at <http://ccwdata.org/>. Last accessed January 2011.
3. NQF, *A National Framework and Preferred Practices for Palliative and Hospice Care Quality: A Consensus Report*, Washington, DC: NQF; 2006.
4. NQF, *National Voluntary Consensus Standards for Nursing Home Care: A Consensus Report*, Washington, DC: NQF; 2004.
5. NQF's Measure Evaluation Criteria can be found at www.qualityforum.org/docs/measure_evaluation_criteria.aspx. Last accessed December 2010.
6. US Government Accountability Office (GAO), *Medicare Part B Imaging Services: Rapid Spending Growth and Shift to Physician Offices Indicate Need for CMS to Consider Additional Management Practices*, Washington, DC: GPO; 2008. Available at www.gao.gov/new.items/d08452.pdf. Last accessed January 2011.

V. LOOKING FORWARD

It now has been just over two years since NQF began its work with HHS under the contract following the Medicare Improvements for Patients and Providers Act. This contract has led to specific, measurable results.

Accomplishments have included:

- the presentation of multi-stakeholder input on the Secretary's National Quality Strategy, with the foundation being laid for a strong public-private partnership focused on achieving the aims of that strategy;
- the endorsement of performance measures in key gap areas, including measures of care transitions for acute myocardial infarction, heart failure, and pneumonia; inpatient psychiatric hospital measures; and measures addressing population health and care coordination; and
- the migration of performance measures to an electronic platform and the development of a process by which measures can be more easily adapted to an electronic format.

Much work remains to be done on these and other initiatives central to improving the quality of American healthcare. But the work performed in the past two years comprises an important foundation upon which the nation's healthcare quality enterprise can continue to build.

In 2011, NQF will continue to convene multiple stakeholders to provide input to HHS on its priority- and goal-setting efforts, endorse and maintain an even greater number of performance measures, and facilitate the integration of performance measurement into electronic health records. Additionally, NQF is just beginning to implement work called for under the Affordable Care Act. This will be centered on the establishment of the Measure Applications Partnership, a multi-stakeholder group that will provide input to the HHS Secretary on the selection of quality measures for public reporting and payment programs.

The nation's quality infrastructure, of which NQF is a part, is still being built—but its foundations are strong. NQF remains committed to working with HHS and its agencies to refashion the American healthcare system into one that is, as the IOM envisioned, safe, timely, effective, efficient, equitable, and patient centered.

APPENDIX A: SUMMARY OF ACCOMPLISHMENTS UNDER THE CONTRACT: JAN. 14, 2010, TO JAN. 13, 2011

TASK	DESCRIPTION	OUTPUT	STATUS (AS OF 01/13/11)	NOTES
6	National Strategy and Priorities			
6.0	Prioritization of Medicare high-impact conditions	Report with list of 20 high-impact conditions, prioritized	Completed May 2010	<i>Prioritization of High-Impact Medicare Conditions and Measure Gaps</i> www.qualityforum.org/projects/prioritization.aspx#t=2&s=&p=4%7C
6.1	Analysis of uses of NQF-endorsed measures	Work plan and list of research questions completed; report pending	In progress	Project delayed to address issues of intellectual property and ability of proposed subcontractor to publish under HHS contract
6.2	Measure development and endorsement agenda	Report setting agenda for measure development and endorsement	Completed January 2011	<i>Measure Development and Endorsement Agenda</i> www.qualityforum.org/MeasureDevelopmentandEndorsementAgenda.aspx#t=2&s=&p=4%7C
6.3	Analysis of measures being used to gauge quality of care for people with multiple chronic conditions	Work plan completed	In progress	Project delayed to address issues of intellectual property and ability of proposed subcontractor to publish under HHS contract
6.4	Analysis of potential "Meaningful Use" measures	Report proposing a framework and criteria for selection of 2013 MU measures; identification of available measures	Completed July 2010	<i>Identification of Potential 2013 e-Quality Measures</i> www.qualityforum.org/projects/i-m/meaningful_use/meaningful_use.aspx
7	Implementation			
7.1	Patient outcomes	Three-phase project endorsing measures specific to outcomes on Medicare high-impact conditions, child health, and mental health	In progress	Eight measures endorsed during contract year (an additional 27 measures subsequently endorsed in January 2011 after close of reporting period)
7.2	Care coordination	N/A	N/A	Project moved at HHS request to 2011, to be funded by the Affordable Care Act
7.3	Patient safety: Serious Reportable Events (SREs)	Reviewing existing list of SREs for hospitals to identify ones appropriate for other settings; considering potential new SREs for all settings	In progress	Updated SRE list applicable to new environments of care expected Spring 2011
7.3	Patient safety: Measures	Two-phase project endorsed new measures of patient safety (e.g., healthcare associated infections, medication safety) and maintaining currently endorsed measures	In progress	Measures from Phase 1 expected Spring 2011; measures from Phase 2 expected Summer 2011
7.3	Patient safety: Guidance for publicly reporting safety information	Report providing public reporting guidance	Completed September 2010	<i>National Voluntary Consensus Standards for Public Reporting of Patient Safety Event Information</i> www.qualityforum.org/Projects/Safety_Reporting_Framework/Framework.aspx#t=2&s=&p=5%7C

TASK	DESCRIPTION	OUTPUT	STATUS (AS OF 01/13/11)	NOTES
7.3	Patient safety: State-based reporting agencies initiative	Convened 27 state-based patient safety reporting agencies to discuss safety reporting efforts and share "best practices"	In progress	Final HHS-funded call completed after reporting period (January 24, 2011) per schedule
7.4	Palliative care	Endorsed measures of palliative care quality	In progress	Endorsed measures expected November 2011
7.5	Nursing homes	Endorsed measures of nursing home care quality	In progress	Project completed and five measures endorsed in February 2011 after close of contract year
7.6	Evaluation of NQF endorsement process	Report analyzing NQF Endorsement Process	Completed January 2011	<i>Assessment of the National Quality Forum's Consensus Development Process</i> (Mathematica Policy Research, Inc.) www.qualityforum.org/Measuring_Performance/Improving_NQF_Process/Improving_NQF_S_Processes.aspx
7.8	Child health measures	Endorsed measures specific to the care of children	In progress	Endorsed measures expected Summer 2011
8	Measure Maintenance			
	NQF measure endorsement and maintenance: process and schedule	Created systematized process and schedule for maintaining all NQF-endorsed measures over three-year period	Completed August 2011	
	Cardiovascular measure maintenance	Two-phase project to endorse new cardiovascular measures and conduct maintenance on existing ones	In progress	Endorsed measures from Phase 1 anticipated November 2011, from Phase 2 anticipated January 2012
	Surgery measures maintenance	Two-phase project to maintain NQF-endorsed surgery measures and consider new ones	In progress	Endorsed measures from Phase 1 anticipated November 2011; from Phase 2 anticipated January 2012
9	Health Information Technology			
9.1	Measure authoring tool	Work with subcontractor to create tool that would allow a measure developer to standardize data elements for writing measures electronically	In progress	Beta version developed by 01/13/11; beta testing to take place late 2011
9.2	Clinical Decision Support Project	Produced report on performance measurement and clinical decision support	Completed December 2010	<i>Driving Quality and Performance Measurement—A Foundation for Clinical Decision Support</i> released in December 2010 www.qualityforum.org/Publications/2010/12/Driving_Quality_and_Performance_Measurement_-_A_Foundation_for_Clinical_Decision_Support.aspx
9.5	Quality Data Model (QDM) Maintenance	Updated QDM to reflect additional types of data needed to support emerging measures (e.g., measures that include social determinants of health)	Ongoing Fall 2010	Released version 2.1 of QDM in Fall 2010 for public comment www.qualityforum.org/Projects/h/QDS_Model/Quality_Data_Model.aspx#t=2&s=&p=3%7C

TASK	DESCRIPTION	OUTPUT	STATUS (AS OF 01/13/11)	NOTES
9.6	Health IT Utilization Project	Produced report on potential types of measures of health IT use and early detection of unintended consequences	Completed December 2010	<i>Driving Quality—A Health IT Assessment Framework</i> released in December 2010 www.qualityforum.org/Publications/2010/12/Driving_Quality_-_A_Health_IT_Assessment_Framework_for_Measurement.aspx
9.7	Measure retooling for EHRs	Retooled 113 NQF-endorsed measures for use in EHRs	Completed December 2010	Measures and eSpecifications have been posted on NQF website for public comment and can be found at www.qualityforum.org/Projects/e-g/eMeasure_Format_Review/eMeasure_Format_Review.aspx#t=2&s=&p=4%7C
9.8	eMeasure Format Review Panel	Convened panel to review retooled measures from Task 9.7 to ensure the eSpecifications of these measures is consistent with the original focus and intent of the measure	Ongoing	Completed first cycle of review in Fall 2010, following public comment period.
11	Website			
	Public-facing website	Update and enhance NQF website to support and enable projects funded under this contract	Ongoing	Added online measure submission form included adapted versions for efficiency measures, new public commenting tool, and improved online voting platform
12	Measurement Development, Harmonization, and Endorsement			
12.1	Efficiency and resource use	Endorsed measures of imaging efficiency; white paper drafted; endorsed measures of healthcare efficiency	In progress	Six imaging efficiency measures endorsed February 2011; one imaging efficiency measure was recommended to be combined with an existing NQF measure. White paper being redrafted to respond to comments. Healthcare efficiency resource use measures endorsement project delayed to allow time for developers to complete measures and to better coordinate with related work in HHS, but now underway.
12.2	Harmonization	Report with guidance for measure developers on how to approach harmonization of quality measures across settings and patient populations	Completed December 2010	<i>Guidance for Measure Harmonization</i> in press
12.3	ICD-10 conversion guidance	Report on how to convert from ICD-9 to ICD-10	Completed September 2011	<i>ICD-10-CM/PCS Coding Maintenance Operational Guidance: A Consensus Report</i> www.qualityforum.org/Publications/2010/10/ICD-10-CM/PCS_Coding_Maintenance_Operational_Guidance.aspx
12.5	Emergency regionalization	Environmental scan and white paper comparing how regions coordinate and perform on delivering emergency services	In progress	Final report expected November 2011
13	National Quality Strategy: Priorities			
	Input on priorities for the National Strategy for Quality Improvement	Report to the Secretary of HHS with recommendations on priorities and goals for the proposed National Quality Strategy	Completed October 2010	<i>Input to the Secretary of Health and Human Services on Priorities for the 2011 National Quality Strategy</i> www.nationalprioritiespartnership.org/

APPENDIX B: LIST OF MEASURES ENDORSED

Includes 62 newly endorsed measures resulting from the work conducted during the contract period, 14 endorsed prior to the close of the contract period, and another 48 awaiting final ratification by the NQF Board of Directors (which occurred shortly after the close of the contract period).

MEASURE NUMBER	MEASURE NAME	CARE SETTING(S)	SUBJECT/TOPIC AREA (E.G., CONDITION, SETTING, CROSS CUTTING AREA)	STATUS AS OF 01/13/2011
OT2-002-09	Risk adjusted colorectal surgery outcome measure	Hospital	Surgery	Awaiting Board ratification (endorsed 1/17/11)
OT1-008-09	Hospital 30-day risk-standardized readmission rates following percutaneous coronary intervention (PCI)	Hospital	Cardiovascular	Endorsed
OT1-015-09	Risk adjusted case mix adjusted elderly surgery outcomes measure	Hospital	Cross-cutting/Surgery	Awaiting Board ratification (endorsed 1/17/11)
OT1-007-09	Hospital risk-standardized complication rate following implantation of implantable cardioverter-defibrillator (ICD)	Hospital	Cardiovascular	Endorsed
OT1-020-09	Functional capacity in COPD patients before and after pulmonary rehabilitation	Other	Respiratory/ICU	Endorsed
OT1-019-09	Health-related quality of life in COPD patients before and after pulmonary rehabilitation	Other	Respiratory/ICU	Endorsed
OT1-024-09	Intensive care: in-hospital mortality rate	Hospital	Respiratory/ICU	Endorsed
OT1-023-09	Intensive Care Unit (ICU) length-of-stay (LOS)	Hospital	Respiratory/ICU	Endorsed
OT1-031-09	Proportion of patients hospitalized with stroke that have a potentially avoidable complication (during the index stay or in the 30-day post-discharge period)	Hospital	Neurology (Stroke)	Awaiting Board ratification (endorsed 1/17/11)
OT1-030-09	Proportion of patients hospitalized with AMI that have a potentially avoidable complication (during the index stay or in the 30-day post-discharge period)	Hospital	Cardiovascular	Awaiting Board ratification (endorsed 1/17/11)
OT2-013-09	Proportion of patients hospitalized with pneumonia that have a potentially avoidable complication (during the index stay or in the 30-day post-discharge period)	Hospital	Respiratory/ICU	Awaiting Board ratification (endorsed 1/17/11)
OT1-013-09	The STS CABG composite score	Hospital	Surgery	Awaiting Board ratification (endorsed 1/17/11)
OT1-016-09	30-Day post-hospital AMI discharge care transition composite measure	Hospital	Cardiovascular	Endorsed
OT1-017-09	30-Day post-hospital HF discharge care transition composite measure	Hospital	Cardiovascular	Endorsed
OT2-005-09	30-Day post-hospital pneumonia discharge care transition composite measure	Hospital	Respiratory/ICU	Awaiting Board ratification (endorsed 1/17/11)

MEASURE NUMBER	MEASURE NAME	CARE SETTING(S)	SUBJECT/TOPIC AREA (E.G., CONDITION, SETTING, CROSS CUTTING AREA)	STATUS AS OF 01/13/2011
OT2-022-09	Proportion of patients with chronic conditions that have a potentially avoidable complication during the calendar year	Health Plan; Group; Population	Cross-cutting	Awaiting Board ratification (endorsed 1/17/11)
OT3-057-10	Asthma admission rate	Other	Outcomes/child health: asthma	Awaiting Board ratification (endorsed 1/17/11)
OT3-055-10	Gastroenteritis admission rate (pediatric)	Hospital	Outcomes/child health:	Awaiting Board ratification (endorsed 1/17/11)
OT3-046-10	Validated family-centered survey questionnaire for parents' and patients' experiences during inpatient pediatric hospital stay	Hospital	Outcomes/child health: survey, patient experience of care	Awaiting Board ratification (endorsed 1/17/11)
OT3-045-10	Measure of medical home for children and adolescents	Other	Outcomes/child health: access to care	Awaiting Board ratification (endorsed 1/17/11)
OT3-044-10	Children who have inadequate insurance coverage for optimal health	Other	Outcomes/child health: access to care	Awaiting Board ratification (endorsed 1/17/11)
OT3-043-10	Pediatric symptom checklist (PSC)	All settings	Outcomes/child health: survey	Awaiting Board ratification (endorsed 1/17/11)
OT3-041-10	Children who attend schools perceived as safe	Other	Outcomes/child health: survey	Awaiting Board ratification (endorsed 1/17/11)
OT3-039-10	Children who live in communities perceived as safe	Other	Outcomes/child health: survey	Awaiting Board ratification (endorsed 1/17/11)
OT3-038-10	Children who receive effective care coordination of healthcare services when needed	Other	Outcomes/child health: access to care	Awaiting Board ratification (endorsed 1/17/11)
OT3-036-10	Children who had problems obtaining referrals when needed	Other	Outcomes/child health: access to care	Awaiting Board ratification (endorsed 1/17/11)
OT3-032-10	Number of school days children miss due to illness	Other	Outcomes/child health: survey	Awaiting Board ratification (endorsed 1/17/11)
OT3-031-10	Healthy term newborn	Hospital	Outcomes/child health: perinatal	Awaiting Board ratification (endorsed 1/17/11)
OT3-029-10	Standardized adverse event ratio for children and adults undergoing cardiac catheterization for congenital heart disease	Hospital	Outcomes/child health: cardiology	Awaiting Board ratification (endorsed 1/17/11)
OT3-028-10	Standardized mortality ratio for neonates undergoing non-cardiac surgery	Hospital	Outcomes/child health: mortality	Awaiting Board ratification (endorsed 1/17/11)
OT3-027-10	Ventriculoperitoneal (VP) shunt malfunction rate in children	Hospital	Outcomes/child health:	Awaiting Board ratification (endorsed 1/17/11)
OT3-011-10	Depression remission at twelve months	Ambulatory care: office, clinic, behavioral health/psychiatric unit	Mental health/depression	Awaiting Board ratification (endorsed 1/17/11)
OT3-012-10	Depression remission at six months	Ambulatory care: office, clinic, behavioral health/psychiatric unit	Mental health/depression	Awaiting Board ratification (endorsed 1/17/11)
OT3-022-10	Depression utilization of the PHQ-9 tool	Ambulatory care: office, clinic, behavioral health/psychiatric unit	Mental health/depression	Awaiting Board ratification (endorsed 1/17/11)

MEASURE NUMBER	MEASURE NAME	CARE SETTING(S)	SUBJECT/TOPIC AREA (E.G., CONDITION, SETTING, CROSS CUTTING AREA)	STATUS AS OF 01/13/2011
OT3-047-10	Inpatient consumer survey	Hospital, long-term acute care hospital, behavioral health/psychiatric unit	Mental health/patient experience	Awaiting Board ratification (endorsed 1/17/11)
NH-003-10	Physical therapy or nursing rehabilitation/restorative care for long-stay patients with new balance problem	Nursing home/skilled nursing facility	Nursing homes/falls	Awaiting Board ratification (endorsed 2/28/11)
NH-008-10	Percent of residents experiencing one or more falls with major injury (long stay)	Nursing home/skilled nursing facility	Nursing homes/falls	Awaiting Board ratification (endorsed 2/28/11)
NH-009-10	The percentage of residents on a scheduled pain medication regimen on admission who report a decrease in pain intensity or frequency (short stay)	Nursing home/skilled nursing facility	Nursing homes/pain	Awaiting Board ratification (endorsed 2/28/11)
NH-010-10	Percent of residents who self-report moderate to severe pain (short stay)	Nursing home/skilled nursing facility	Nursing homes/pain	Awaiting Board ratification (endorsed 2/28/11)
NH-011-10	Percent of residents who self-report moderate to severe pain (long stay)	Nursing home/skilled nursing facility	Nursing homes/pain	Awaiting Board ratification (endorsed 2/28/11)
NH-012-10	Percent of residents with pressure ulcers that are new or worsened (short stay)	Nursing home/skilled nursing facility	Nursing homes/pressure ulcers	Awaiting Board ratification (endorsed 2/28/11)
NH-013-10	Percent of high-risk residents with pressure ulcers (long stay)	Nursing home/skilled nursing facility	Nursing homes/pressure ulcers	Awaiting Board ratification (endorsed 2/28/11)
NH-014-10	Percent of residents who were assessed and appropriately given the seasonal influenza vaccine during the flu season (short stay)	Nursing home/skilled nursing facility	Nursing homes/immunization	Awaiting Board ratification (endorsed 2/28/11)
NH-015-10	Percent of residents who were assessed and appropriately given the seasonal influenza vaccine (long stay)	Nursing home/skilled nursing facility	Nursing homes/immunization	Awaiting Board ratification (endorsed 2/28/11)
NH-016-10	Percent of residents who were assessed and appropriately given the pneumococcal vaccine (short stay)	Nursing home/skilled nursing facility	Nursing homes/immunization	Awaiting Board ratification (endorsed 2/28/11)
NH-017-10	Percent of residents who were assessed and appropriately given the pneumococcal vaccine (long stay)	Nursing home/skilled nursing facility	Nursing homes/immunization	Awaiting Board ratification (endorsed 2/28/11)
NH-018-10	Percent of residents with a urinary tract infection (long stay)	Nursing home/skilled nursing facility	Nursing homes/safety	Awaiting Board ratification (endorsed 2/28/11)
NH-019-10	Percent of low-risk residents who lose control of their bowels or bladder (long stay)	Nursing home/skilled nursing facility	Nursing homes/functional status	Awaiting Board ratification (endorsed 2/28/11)
NH-020-10	Percent of residents who have/had a catheter inserted and left in their bladder (long stay)	Nursing home/skilled nursing facility	Nursing homes/safety	Awaiting Board ratification (endorsed 2/28/11)
NH-021-10	Percent of residents who were physically restrained (long stay)	Nursing home/skilled nursing facility	Nursing homes/safety	Awaiting Board ratification (endorsed 2/28/11)
NH-022-10	Percent of residents whose need for help with daily activities has increased (long stay)	Nursing home/skilled nursing facility	Nursing homes/functional status	Awaiting Board ratification (endorsed 2/28/11)
NH-024-10	Percent of residents who lose too much weight (long stay)	Nursing home/skilled nursing facility	Nursing homes/functional status	Awaiting Board ratification (endorsed 2/28/11)

MEASURE NUMBER	MEASURE NAME	CARE SETTING(S)	SUBJECT/TOPIC AREA (E.G., CONDITION, SETTING, CROSS CUTTING AREA)	STATUS AS OF 01/13/2011
NH-025-10	Percent of residents who have depressive symptoms (long stay)	Nursing home/skilled nursing facility	Nursing homes/mental health	Awaiting Board ratification (endorsed 2/28/11)
NH-026-10	Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Discharged Resident Instrument	Nursing home/skilled nursing facility	Nursing homes/patient experience	Awaiting Board ratification (endorsed 2/28/11)
NH-027-10	Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Long-Stay Resident Instrument	Nursing home/skilled nursing facility	Nursing homes/patient experience	Awaiting Board ratification (endorsed 2/28/11)
NH-028-10	Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Family Member Instrument	Nursing home/skilled nursing facility	Nursing homes/patient experience	Awaiting Board ratification (endorsed 2/28/11)
IEP-005-10	Pulmonary CT imaging for patients at low risk for pulmonary embolism	Ambulatory care: office, clinic and hospital outpatient	Overuse/safety	Endorsed
IEP-007-10	Appropriate head CT imaging in adults with mild traumatic brain injury	Ambulatory care: ED could consider for additional ambulatory settings: office, clinic and hospital outpatient	Overuse/safety	Endorsed
IEP-010-10	Cardiac imaging for preoperative risk assessment for non-cardiac low-risk surgery	Ambulatory care: hospital outpatient	Overuse/safety	Endorsed
IEP-014-10	Cardiac stress imaging not meeting appropriate use criteria: preoperative evaluation in low risk surgery patients	Ambulatory care: hospital outpatient, office	Overuse/safety	Endorsed
IEP-015-10	Cardiac stress imaging not meeting appropriate use criteria: routine testing after percutaneous coronary interventions (PCI)	Ambulatory care: hospital outpatient, office	Overuse/safety	Endorsed
IEP-016-10	Cardiac stress imaging not meeting appropriate use criteria: testing in asymptomatic, low-risk patients	Ambulatory care: hospital outpatient, office	Overuse/safety	Endorsed

APPENDIX C: REPORTS PUBLISHED BY NQF UNDER THE HHS CONTRACT BETWEEN JANUARY 14, 2010, AND JANUARY 13, 2011

Prioritization of High-Impact Medicare Conditions and Measure Gaps; Task 6.0; May 2010

www.qualityforum.org/projects/prioritization.aspx#t=2&s=&p=4%7C

Measure Development and Endorsement Agenda; Task 6.2; January 2011

www.qualityforum.org/MeasureDevelopmentandEndorsementAgenda.aspx

Identification of Potential 2013 e-Quality Measures; Task 6.4; August 2010

www.qualityforum.org/projects/i-m/meaningful_use/meaningful_use.aspx

National Voluntary Consensus Standards for Public Reporting of Patient Safety Event Information; Task 7.3; September 2010

www.qualityforum.org/Projects/Safety_Reporting_Framework/Framework.aspx#t=2&s=&p=5%7C

Assessment of the National Quality Forum's Consensus Development Process (Mathematica Policy Research, Inc.); Task 7.6; December 2010

www.qualityforum.org/Measuring_Performance/Improving_NQF_Process/Improving_NQF_S_Processes.aspx

Driving Quality and Performance Measurement: A Foundation for Clinical Decision Support; Task 9.2; December 2010

www.qualityforum.org/Publications/2010/12/Driving_Quality_and_Performance_Measurement_-_A_Foundation_for_Clinical_Decision_Support.aspx

Driving Quality—A Health IT Assessment Framework for Measurement: A Consensus Report; Task 9.6; December 2010

www.qualityforum.org/Publications/2010/12/Driving_Quality_-_A_Health_IT_Assessment_Framework_for_Measurement.aspx

Guidance for Measure Harmonization; Task 12.2; in press

ICD-10-CM/PCS Coding Maintenance Operational Guide: A Consensus Report; Task 12.3; October 2010

www.qualityforum.org/Publications/2010/10/ICD-10-CM/PCS_Coding_Maintenance_Operational_Guidance.aspx

Input to the Secretary of Health and Human Services on Priorities for the 2011 National Quality Strategy; Task 13; October 2010 www.nationalprioritiespartnership.org

APPENDIX D: NQF BOARD OF DIRECTORS

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MPH (Chair)
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and Chief Executive Officer
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Chapel Hill

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Business Coalition on Health

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Captain, U.S. Public Health Service, Medical Director

EX OFFICIO (NON-VOTING):

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Director, Center for Medical Consumers

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APPENDIX E: NQF SENIOR LEADERSHIP

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Partnerships

Kyle Vickers

Chief Information Officer

APPENDIX F: NATIONAL PRIORITIES PARTNERSHIP

National Committee for Quality Assurance

(Margaret E. O’Kane, MHS, President; NPP Co-Chair)

Physician Consortium for Performance Improvement convened by the American Medical Association

(Bernard Rosof, MD, Chair; NPP Co-Chair)

		Ex-Officio Partner Organizations
AARP	Leapfrog Group	
AFL-CIO	National Association of Community Health Centers	Agency for Healthcare Research and Quality
Aligning Forces for Quality	National Association of Medicaid Directors	Centers for Disease Control and Prevention
Alliance for Home Health Quality and Innovation	National Business Group on Health	Centers for Medicare & Medicaid Services
Alliance for Pediatric Quality	National Governors Association	Health Resources and Services Administration
America’s Health Insurance Plans	National Hispanic Medical Association	National Institutes of Health
American Board of Medical Specialties	National Initiative for Children’s Healthcare Quality	Veterans Health Administration
American Health Care Association	National Partnership for Women & Families	
American Medical Informatics Association	National Quality Forum	
American Medical Association	Network for Regional Healthcare	
American Nurses Association	Nursing Alliance for Quality Care	
AQA	Pacific Business Group on Health	
Association of State and Territorial Health Officials	Partnership for Prevention	
Certification Commission for Health Information Technology	Patient Centered Primary Care Collaborative	
Consumers Union	Pharmacy Quality Alliance	
Hospital Quality Alliance	Planetree	
Institute for Healthcare Improvement	Quality Alliance Steering Committee	
Institute of Medicine	U.S. Chamber of Commerce	
Johnson & Johnson Health Care Systems		
The Joint Commission		

APPENDIX G: NQF CONSENSUS DEVELOPMENT PROCESS (VERSION 1.8)

NQF uses its formal Consensus Development Process (CDP) to evaluate and endorse consensus standards, including performance measures, best practices, frameworks, and reporting guidelines. The CDP is designed to call for input and carefully consider the interests of stakeholder groups from across the healthcare industry.

Because NQF uses this formal CDP, it is recognized as a voluntary consensus standards-setting organization as defined by the National Technology Transfer and Advancement Act of 1995¹ and Office of Management and Budget Circular A-119.² Over the past 10 years, the procedures that form NQF's CDP and its implementation have evolved to ensure that evaluation of candidate consensus standards continues to follow best practices in performance measurement and standards setting. NQF is currently using version 1.8 of the CDP.

NQF's CDP involves nine principal steps. Each contains several substeps and is associated with specific actions. The steps are:

1. Call for Intent to Submit Candidate Standards
2. Call for Nominations
3. Call for Candidate Standards
4. Candidate Consensus Standard Review
5. Public and Member Comment
6. Member Voting
7. Consensus Standards Approval Committee (CSAC) Decision
8. Board Ratification
9. Appeals

Notes

1. US Congress, *National Technology Transfer and Advancement Act of 1995 (PL 104-113)*, Washington, DC: US Government Printing Office; 1995. Available at http://standards.gov/standards_gov/ntta.cfm. Last accessed December 2010.
2. The White House, *US Office of Management and Budget, Circular No. A-119, February 10, 1998*, Washington, DC: Office of Management and Budget; 1998. Available at www.whitehouse.gov/omb/circulars_a119/. Last accessed December 2010.

APPENDIX H: LIST OF NQF MEMBER ORGANIZATIONS BY COUNCIL

Consumer Council

AARP
AFL-CIO
American Federation of Teachers
Healthcare
American Hospice Foundation
American Sleep Apnea Association
Childbirth Connection
Citizens for Patient Safety
Coalition for Improving Maternity
Services
Community Catalyst
Community Health Foundation of
Western and Central New York
Connecticut Center for Patient
Safety
Consumer Coalition for Quality
Health Care
Consumers Advancing Patient Safety
Consumers' Checkbook
Consumers Union
DES Action USA
Foundation for Informed Medical
Decision Making
Health Watch USA
Lamaze International
Mothers Against Medical Error
National Breast Cancer Coalition
National Coalition for Cancer
Survivorship
National Consumers League
National Council on Aging
National Health Law Program
National Partnership for Women &
Families
National Sleep Foundation
Patient Centered Primary Care
Collaborative
PULSE of New York
The Coordinating Center
The Empowered Patient Coalition
The National Consumer Voice for
Quality Long-Term Care
The Partnership for Healthcare
Excellence

Trauma Support Network
Trust for America's Health

Health Plan Council

Aetna
Alliance of Community Health
Plans
America's Health Insurance Plans
Arkansas Medicaid
BlueCross BlueShield Association
CareFirst BlueCross BlueShield
CIGNA HealthCare
Highmark, Inc.
Horizon Blue Cross Blue Shield of
New Jersey
Hudson Health Plan
Humana Inc.
Kaiser Permanente
UnitedHealth Group
Universal American Corp
WellPoint

Health Professionals Council

AANAC
Academy of Managed Care
Pharmacy
Academy of Medical-Surgical Nurses
American Academy of Audiology
American Academy of Dermatology
American Academy of Family
Physicians
American Academy of Hospice and
Palliative Medicine
American Academy of Neurology
American Academy of Nurse
Practitioners
American Academy of
Ophthalmology
American Academy of Orthopaedic
Surgeons
American Academy of
Otolaryngology-Head and Neck
Surgery

American Academy of Pediatrics
American Academy of Physical
Medicine and Rehabilitation
American Association of Birth
Centers
American Association of
Cardiovascular and
Pulmonary Rehabilitation
American Association of Clinical
Endocrinologists
American Association of Diabetes
Educators
American Association of
Neurological Surgeons
American Association of Nurse
Anesthetists
American Case Management
Association
American Chiropractic Association
American College of Cardiology
American College of Emergency
Physicians
American College of
Gastroenterology
American College of Nurse-
Midwives
American College of Obstetricians
and Gynecologists
American College of Physician
Executives
American College of Physicians
American College of Radiology
American College of Rheumatology
American College of Surgeons
American Dietetic Association
American Gastroenterological
Association Institute
American Geriatrics Society
American Health Information
Management Association
American Heart Association
American Medical Association
American Medical Directors
Association
American Nurses Association
American Optometric Association

American Organization of Nurse Executives
 American Osteopathic Association
 American Pharmacists Association Foundation
 American Physical Therapy Association
 American Psychiatric Nurses Association
 American Society for Gastrointestinal Endoscopy
 American Society for Radiation Oncology
 American Society of Anesthesiologists
 American Society of Breast Surgeons
 American Society of Clinical Oncology
 American Society of Colon and Rectal Surgeons
 American Society of Health-System Pharmacists
 American Society of Hematology
 American Society of Pediatric Nephrology
 American Society of Plastic Surgeons
 American Urological Association
 Association for Professionals in Infection Control and Epidemiology
 Association for the Advancement of Wound Care
 Association of periOperative Registered Nurses
 Association of Rehabilitation Nurses
 Association of Women's Health, Obstetric and Neonatal Nurses
 Council of Medical Specialty Societies
 Heart Rhythm Society
 Hospice and Palliative Nurses Association
 Infectious Diseases Society of America
 Infusion Nurses Society
 National Academy of Clinical Biochemistry
 National Alliance of Wound Care

National Association for Behavioral Health
 National Association of Certified Professional Midwives
 National Association of Pediatric Nurse Practitioners
 National Nursing Staff Development Organization
 National Pressure Ulcer Advisory Panel
 New York University College of Nursing
 Nursing Alliance for Quality Care
 Ohio Hospice & Palliative Care Organization
 Renal Physicians Association
 Society for Academic Emergency Medicine
 Society for Cardiovascular Angiography and Interventions
 Society for Healthcare Epidemiology of America
 Society for Vascular Surgery
 Society of Critical Care Medicine
 Society of General Internal Medicine
 Society of Hospital Medicine
 Society of Thoracic Surgeons
 Wisconsin Medical Society
 Wound, Ostomy and Continence Nurses Society

Provider Council

Adventist Health System
 Advocate Physician Partners
 Ambulatory Surgery Foundation
 Amedisys
 American Health Care Association
 American Hospital Association
 AmSurg Corp.
 Ascension Health
 Association for Behavioral Health and Wellness
 Association of American Medical Colleges
 Atlantic Health
 Aultman Health Foundation

Aurora Health Care
 Baptist Health South Florida
 Baptist Memorial Health Care Corporation
 BayCare Health System
 Baylor Health Care System
 BJC HealthCare
 Bon Secours St. Francis Health System
 Bronson Healthcare Group, Inc.
 California Hospital Association
 CaroMont Health
 Catholic Health Association of the United States
 Catholic Health Initiatives
 Catholic Healthcare Partners
 Cedars-Sinai Medical Center
 Child Health Corporation of America
 Children's Hospitals and Clinics of Minnesota
 CIMPAR, S.C.
 City of Hope
 Cleveland Clinic
 Connecticut Hospital Association
 Crozer-Keystone Health System
 Dana-Farber Cancer Institute
 Detroit Medical Center
 DMAA: The Care Continuum Alliance
 Emergency Department Practice Management Association
 Englewood Hospital and Medical Center
 Exeter Health Resources
 Federation of American Hospitals
 Florida Hospital
 Fox Chase Cancer Center
 Genesis HealthCare System
 Gentiva Health Services
 Good Samaritan Hospital
 H. Lee Moffitt Cancer Center and Research Institute Hospital, Inc.
 Hackensack University Medical Center
 Harborview Medical Center
 Health Management Associates, Inc.

Healthcare Leadership Council
 HealthPartners
 HealthSouth Corporation
 Henry Ford Health System
 Hoag Hospital
 Hospital Corporation of America
 Hospital for Special Surgery
 Illinois Hospital Association
 Interim HealthCare Inc.
 Johns Hopkins Health System
 LHC Group, Inc.
 Long-Term Quality Alliance
 MaineGeneral Medical Center
 Mayo Clinic
 MedStar Health
 Memorial Hermann Healthcare System
 Memorial Sloan-Kettering Cancer Center
 Mercy Medical Center
 Meridian Health System
 Mission Hospital, Inc.
 National Association of Children's Hospitals and Related Institutions
 National Association of Psychiatric Health Systems
 National Association of Public Hospitals and Health Systems
 National Consortium of Breast Centers
 National Hospice and Palliative Care Organization
 National Rural Health Association
 NCH Healthcare System
 Nemours Foundation
 New Jersey Hospital Association
 New York Presbyterian Healthcare System
 North Mississippi Medical Center
 North Shore-Long Island Jewish Health System
 North Texas Specialty Physicians
 Northwestern Memorial HealthCare
 Norton Healthcare, Inc.
 OSUCCC-James Cancer Hospital
 Park Nicollet Health Services
 Partners HealthCare System, Inc.

Pennsylvania Health Care Association
 Piedmont Healthcare
 Planetree
 Premier, Inc.
 Providence Health & Services
 Robert Wood Johnson University Hospital-Hamilton
 Rockford Health System
 Roswell Park Cancer Institute
 Rush University Medical Center
 Saint Barnabas Health Care System
 Saint Francis Hospital and Medical Center
 Seattle Cancer Care Alliance
 Sharp HealthCare
 Sisters of Charity of Leavenworth Health System
 Sisters of St. Francis Health Services
 Southeast Texas Medical Associates, LLP
 Stamford Health System
 Summa Health System
 Surgical Care Affiliates
 Sylvester Comprehensive Cancer Center, University of Miami Hospitals and Clinics
 Tampa General Hospital
 Tenet Healthcare Corporation
 Texas Health Resources
 The Alliance for Home Health Quality and Innovation
 The Health Alliance of Mid America LLC
 The National Forum of ESRD Networks
 The University of Kansas Hospital
 Thomas Jefferson University Hospital
 Trinity Health
 UMass Memorial Medical Group, Inc.
 United Surgical Partners International
 University of California-Davis Medical Group
 University of Michigan Hospitals & Health Centers

University of Pennsylvania Health System
 University of Texas Southwestern Medical Center
 University of Texas-MD Anderson Cancer Center
 University of Virginia Health System
 US Department of Defense-Health Affairs
 UW Health
 Vanderbilt University Medical Center
 Vanguard Health Management
 Veterans Health Administration
 VHA, Inc.
 Virginia Mason Medical Center
 Virtua Health
 WellSpan Health
 WellStar Health System
 Yale New Haven Health System

Public/Community Health Agencies Council

Albuquerque Coalition for Healthcare Quality
 Aligning Forces for Quality—South Central Pennsylvania
 Alliance for Health
 Better Health Greater Cleveland
 California Office of Statewide Health Planning and Development
 Center for Health Care Quality, Department of Health Policy, George Washington University
 Centers for Disease Control and Prevention
 Central Indiana Alliance for Health
 Community Health Alliance-Humboldt County Del-Norte
 Greater Detroit Area Health Council
 Health Improvement Collaborative of Greater Cincinnati
 Health Resources and Services Administration
 Healthy Memphis Common Table

Illinois Department of Public Health
Integrated Healthcare Association
Kansas City Quality Improvement Consortium
Maine Quality Forum
Maryland Health Care Commission
Massachusetts Health Quality Partners
Middlesex Hospital
Minnesota Community Measurement
National Academy for State Health Policy
National Association of Health Data Organizations
Oregon Health Care Quality Corporation
P2 Collaborative of Western New York
Puget Sound Health Alliance
Quality Counts
Rhode Island Department of Health
State Associations of Addiction Services
Substance Abuse and Mental Health Services Administration
The HOPE of Wisconsin
Washington State Department of Health
Wisconsin Collaborative for Healthcare Quality

Purchaser Council

Buyers Health Care Action Group
Caterpillar Inc.
Centers for Medicare & Medicaid Services
Colorado Business Group on Health
Employers' Coalition on Health
Florida Health Care Coalition
General Motors Corporation
Health Action Council Ohio
Health Services Coalition
HealthCare 21 Business Coalition
Lehigh Valley Business Coalition on Health Care

Maine Health Management Coalition
Microsoft Corporation
National Association of State Medicaid Directors
National Business Coalition on Health
National Business Group on Health
New Jersey Health Care Quality Institute
Niagara Health Quality Coalition
Pacific Business Group on Health
St. Louis Area Business Health Coalition
The Alliance
The Leapfrog Group
Virginia Business Coalition on Health
Washington State Health Care Authority

QMRI Council

AAAHC Institute for Quality Improvement
ABIM Foundation
ACC/AHA Task Force on Performance Measures
ACS-MIDAS+
Agency for Healthcare Research and Quality
American Academy of Nursing
American Association of Colleges of Nursing
American Board of Medical Specialties
American Board of Optometry
American College of Medical Quality
American Data Network
American Health Quality Association
American Medical Association-Physician Consortium for Performance Improvement
American Medical Informatics Association
American Psychiatric Association for Research and Education

Anesthesia Quality Institute
AYR Consulting Group
Betsy Lehman Center for Patient Safety and Medical Error Reduction
BoozAllenHamilton
California HealthCare Foundation
California Maternal Quality Care Collaborative
Case Management Society of America
Center to Advance Palliative Care
Community Health Accreditation Program
Coral Initiative, LLC
Core Consulting, Inc.
Dallas-Fort Worth Hospital Council Education and Research Foundation
Freedman HealthCare, LLC
Health Level Seven, Inc
Health Services Advisory Group
Healthcare Information and Management Systems Society
HealthGrades
Institute for Clinical Systems Improvement
Institute for Safe Medication Practices
Iowa Foundation for Medical Care
Iowa Healthcare Collaborative
IPRO
Jefferson Health System, Office of Health Policy and Clinical Outcomes
Kidney Care Partners
Louisiana Health Care Quality Forum
Medisolv, Inc.
MHA Keystone Center for Patient Safety & Quality
Milliman Care Guidelines
National Association for Healthcare Quality
National Center for Healthcare Leadership
National Committee for Quality Assurance

National Consensus Project for Quality Palliative Care
 National Council of State Boards of Nursing
 National Institute for Quality Improvement and Education
 National Institutes of Health
 National Patient Safety Foundation
 Neocure Group
 Next Wave
 North Carolina Center for Hospital Quality and Patient Safety
 Northeast Health Care Quality Foundation
 Partnership for Prevention
 Pharmacy Quality Alliance
 Press Ganey Associates
 Professional Research Consultants, Inc.
 Quality Indicator Project
 Quality Outcomes, LLC
 Resolution Health, Inc.
 Texas Medical Institute of Technology
 The Commonwealth Fund
 The Joint Commission
 Thomson Reuters
 University HealthSystem Consortium

University of Kansas School of Nursing
 University of North Carolina-Program on Health Outcomes
 URAC
 Verilogue, Inc
 Virginia Cardiac Surgery Quality Initiative
 West Virginia Medical Institute

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 Bristol-Myers Squibb Company
 CareFusion
 Deloitte Consulting LLP, Health Sciences and Government
 Dialog Medical
 Edwards Lifesciences
 eHealth Initiative
 Eisai, Inc.
 Eli Lilly and Company
 Elsevier Clinical Decision Support
 Epstein Becker & Green, P.C.

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 GlaxoSmithKline
 Greenway Medical Technologies
 Hospira
 MedAssets
 MedAnalytics, Inc.
 Merck & Co., Inc
 Noblis
 Ortho-McNeill-Janssen Pharmaceutical, Inc.
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 PhRMA
 Phytel, Inc.
 sanofi pasteur
 sanofi-aventis
 Siemens Healthcare, USA
 The Advanced Medical Technology Association (AdvaMed)
 Zynx Health

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