cosmetics will file 4,049 amendments to product formulations on Forms FDA 2512 and FDA 2512a. Each submission is estimated to take 0.17 hour per response for a total of 688.33 hours, rounded to 688. We estimate that, annually, firms that manufacture, pack, or distribute cosmetics will file 95 notices of discontinuance on Form FDA 2512. Each submission is estimated to take 0.10 hour per response for a total of 9.5 hours, rounded to 10. We estimate that, annually, one firm will file one request for confidentiality. Each such request is estimated to take 2 hours to prepare for a total of 2 hours. Thus, the total estimated hour burden for this information collection is 3,233 hours.

Dated: August 17, 2017.

Leslie Kux,

Associate Commissioner for Policy.

[FR Doc. 2017–17701 Filed 8–21–17; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

[CMS–3340–N]

Secretarial Review and Publication of the National Quality Forum Report of 2016 Activities to Congress and the Secretary of the Department of Health and Human Services

AGENCY: Office of the Secretary of Health and Human Services, HHS.

ACTION: Notice.

SUMMARY: This notice acknowledges that in accordance with section 1890(b)(5)(B) of the Social Security Act (the Act) the Secretary of the Department of Health and Human Services (the Secretary) has received and reviewed the National Quality Forum (NQF) Report of 2016 Activities to Congress and the Secretary of the Department of Health and Human Services submitted by the consensus-based entity with whom the Secretary has a contract under section 1890(a) of the Act. The purpose of this **Federal Register** notice is to publish the report, together with the Secretary's comments on such report.

FOR FURTHER INFORMATION CONTACT: Sophia Chan, (410) 786–5050.

I. Background

The Secretary of the Department of Health and Human Services (the Secretary) has long recognized that a high functioning health care system that provides higher quality care requires accurate, valid, and reliable measurement of quality and efficiency. Section 1890(a) of the Social Security Act (the Act), as added by section 183(a)(1) of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) (Pub. L. 110–275), requires the Secretary to identify and have in effect a contract with a consensus-based entity (CBE) to perform multiple duties described in subsection (b) that are designed to help improve performance measurement. The duties described in subsection (b) originally included a priority setting process, measure endorsement, measure maintenance, electronic health record promotion, and the preparation of an annual Report to Congress and the Secretary. Section 3003(b) of the Patient Protection and Affordable Care Act (Pub. L. 111–148) as amended by the Health Care and Education Reconciliation Act (Pub. L. 111–152) (collectively, the Affordable Care Act) expanded the duties of the CBE to require the CBE to review and, as appropriate, endorse the episode grouper developed by the Secretary under the Physician Feedback Program. Section 3014(a)(1) of the Affordable Care Act further expanded the duties to require the CBE to convene multi-stakeholder groups to provide input on the selection of quality and efficiency measures and national priorities for improvement in population health and in the delivery of health care services for consideration under the national strategy, and to transmit such input to the Secretary. Section 3014(a)(2) of the Affordable Care Act expanded the requirements for the annual report that must be submitted under section 1890(b)(5)(A) of the Act.

To meet the requirements of section 1890(a) of the Act, in January of 2009, the Department of Health and Human Services (HHS) awarded a competitive contract to the National Quality Forum (NQF). A second, multi-year contract was awarded to NQF after an open competition in 2012. This contract includes the following duties:

Priority Setting Process: Formulation of a National Strategy and Priorities for Health Care Performance Measurement. The CBE is required to synthesize evidence and convene key stakeholders to make recommendations on an integrated national strategy and priorities for health care performance measurement in all applicable settings. In doing so, the CBE is to give priority to measures that: (1) Address the health care provided to patients with prevalent, high-cost chronic diseases; (2) have the greatest potential for improving quality, efficiency and patient-centeredness of health care; and (3) may be implemented rapidly due to existing evidence, standards of care, or other reasons. Additionally, the CBE must take into account measures that: (1) May assist consumers and patients in making informed health care decisions; (2) address health disparities across groups and areas; and (3) address the continuum of care a patient receives, including across multiple providers, practitioners and settings.

Endorsement of Measures. The CBE is required to provide for the endorsement of standardized health care performance measures. This process must consider whether measures are evidence-based, reliable, valid, verifiable, relevant to enhanced health outcomes, actionable at the caregiver level, feasible to collect and report, responsive to variations in patient characteristics such as health status, language capabilities, race or ethnicity, and income level and consistent across types of health care providers, including hospitals and physicians.

Maintenance of CBE Endorsed Measures. The CBE is required to establish and implement a process to ensure that endorsed measures are updated (or retired if obsolete) as new evidence is developed.

Review and Endorsement of an Episode Grouper Under the Physician Feedback Program. ''Episode-based'' performance measurement is an approach to better understanding the utilization and costs associated with a certain condition by grouping together all the care related to that condition. ''Episode groupers'' are software tools that combine data to assess such condition-specific utilization and costs over a defined period of time. The CBE is required to provide for the review, and as appropriate, endorsement of an episode grouper as developed by the Secretary on an expedited basis.

Convening Multi-Stakeholder Groups. The CBE must convene multi-stakeholder groups to provide input on: (1) The selection of certain categories of quality and efficiency measures, from among such measures that have been endorsed by the entity; and such measures that have not been considered for endorsement by such entity but are used or proposed to be used by the Secretary for the collection or reporting of quality and efficiency measures; and (2) national priorities for improvement in population health and in the delivery of health care services for consideration under the national strategy. The CBE provides input on measures for use in certain specific Medicare programs, for use in programs that report performance information to the public, and for use in health care programs that are not included under the Act. The multi-stakeholder groups provide input on quality and efficiency measures for use in certain federal programs including

those that address certain Medicare services provided through hospices, hospital inpatient and outpatient facilities, physician offices, cancer hospitals, end stage renal disease (ESRD) facilities, inpatient rehabilitation facilities, long-term care hospitals, psychiatric hospitals, and home health care programs. For Medicaid and the Children's Health Insurance Program (CHIP), the multi-stakeholder groups provide input on measures to be included as part of the Medicaid and CHIP Child and Adult Core Sets.

Transmission of Multi-Stakeholder Input. Not later than February 1 of each year, the CBE is required to transmit to the Secretary the input of multi-stakeholder groups.

Annual Report to Congress and the Secretary. Not later than March 1 of each year, the CBE is required to submit to Congress and the Secretary of HHS an annual report. The report is required to describe the following:

- The implementation of quality and efficiency measurement initiatives and the coordination of such initiatives with quality and efficiency initiatives implemented by other payers;
- Recommendations on an integrated national strategy and priorities for health care performance measurement;
- Performance by the CBE on the duties required under its contract with HHS;
- Gaps in endorsed quality and efficiency measures, including measures that are within priority areas identified by the Secretary under the national strategy established under section 399HH of the Public Health Service Act (National Quality Strategy), and where quality and efficiency measures are unavailable or inadequate to identify or address such gaps;
- Areas in which evidence is insufficient to support endorsement of quality and efficiency measures in priority areas identified by the Secretary under the National Quality Strategy, and where targeted research may address such gaps; and
- The convening of multi-stakeholder groups to provide input on: (1) the selection of quality and efficiency measures from among such measures that have been endorsed by the CBE and those that have not been considered for endorsement by the CBE but are used or proposed to be used by the Secretary for the collection or reporting of quality and efficiency measures; and (2) national priorities for improvement in population health and the delivery of health care services for consideration under the National Quality Strategy.

The statutory requirements for the CBE to annually Report to Congress and the Secretary of HHS also specify that the Secretary must review and publish the CBE's annual report in the **Federal Register**, together with any comments by the Secretary on the report, not later than 6 months after receiving it.

This **Federal Register** notice complies with the statutory requirement for Secretarial review and publication of the CBE's annual report. NQF submitted a report on its 2016 activities to the Secretary on March 1, 2017. Comments of the Secretary on this report are presented below in section II and the actual 2017 Annual Report to Congress is provided as an addendum to this **Federal Register** notice.

II. Secretarial Comments on the NQF Report of 2016 Activities to Congress and the Secretary of the Department of Health and Human Services

Once again we thank the National Quality Forum (NQF) and the many stakeholders who participate in NQF projects for helping to advance the science and utility of health care quality measurement. As part of its annual recurring work to maintain a strong portfolio of endorsed measures for use across varied providers, settings of care, and health conditions, NQF reports that in 2016 it updated its portfolio of approximately 600 endorsed measures by reviewing and endorsing or re-endorsing 197 measures and removing 87 measures. Endorsed measures facilitate the goals of improving care for highly prevalent conditions, fostering better care and coordination, and making the healthcare system more responsive to patient and family needs. These endorsed measures address a wide range of health care topics relevant to HHS programs, including: Person- and family-centered care; care coordination; palliative and end-of-life care; cardiovascular care; behavioral health; pulmonary/critical care; perinatal care; cancer treatment; patient safety; and cost and resource use.

In addition to adding and re-endorsing new and existing measures, some measures were also removed from the portfolio for a variety of reasons (for example, no longer meeting endorsement criteria; harmonization with other similar measures; retirement by the measures developers; replacement with improved measures; and lack of continued need because providers consistently perform at the highest level on those measures). This continuous refinement of the measures portfolio through the measures maintenance process ensures that quality measures remain aligned with current field practices and health care goals. NQF also reports that in 2016 it continued to support the National Quality Strategy (NQS) by endorsing measures linked to the NQS priorities and convening diverse stakeholder groups to reach consensus on key strategies for performance measurement.

In addition, in 2016 NQF undertook and continued a number of projects to address difficult quality measurement issues and reduce the burden of quality measures for clinicians. An important area that NQF continued to address was the issue of attribution, or the process used to assign accountability for a patient and his or her quality outcomes to a clinician, a group of clinicians, or a facility. HHS agrees that engaging clinicians and clearly communicating the methods and benchmarks used to determine attribution are foundational principles in quality measurement. Having clear methods for attribution helps clinicians understand the information given to them from quality measures, and allows for clinicians to make actionable changes to their clinical practices. When clinicians receive meaningful feedback regarding performance measurement, they can use it to implement best practices. Clear performance data reduce clinicians' burden in deciphering quality measurement information and allows them to focus on how best to improve care. While attribution models may differ, clinician engagement, transparency, and clear, usable data remain fundamental to quality measurement.

NQF's work on attribution began in 2015 when NQF convened a multi-stakeholder committee to examine attribution models and recommend principles to guide the selection and implementation of approaches. This work has resulted in a thorough list of potential approaches to validly and reliably attribute performance measurement results to one or more clinicians under different delivery models and to identify models of attribution for potential testing. The committee first convened in December 2015 and performed an environmental scan to identify attribution models currently in use and models that have been proposed but not implemented. The environmental scan identified 171 unique attribution models, 27 of which have been implemented and 144 of which remain proposals only. The models differed across care settings, payment models, and in methodology, but there were also areas of similarity. After reviewing and discussing the scan, the committee defined several guiding principles to inform the development of

successful attribution models. In addition, the committee developed an Attribution Model Selection Guide and outlined their findings in a report published in December 2016. See ''Attribution—Principles and Approaches'', National Quality Forum, December 2016, *https://www.qualityforum.org/Publications/2016/12/Attribution_-_Principles_and_Approaches.aspx*.

Attribution is just one of many areas in which NQF partners with HHS in enhancing and protecting the health and well-being of all Americans. Quality measurement is essential to a high-functioning healthcare system, as evidenced in many of the targeted projects that NQF is being asked to undertake. HHS greatly appreciates the ability to bring many and diverse stakeholders to the table to help develop the strongest possible approaches to quality measurement as a key component of our healthcare system. We look forward to a continued strong partnership with the National Quality Forum in this ongoing endeavor.

III. Collection of Information Requirements

This document does not impose information collection requirements, that is, reporting, recordkeeping, or third-party disclosure requirements. Consequently, there is no need for review by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

IV. Addendum

In this Addendum, we are publishing the *NQF Report on 2016 Activities to Congress and the Secretary of the Department of Health and Human Services.*

Dated: August 16, 2017.

Thomas E. Price,

Secretary, Department of Health and Human Services.

BILLING CODE 4150–28–P

NQF Report of 2016 Activities to Congress and the Secretary of the Department of Health and Human Services

March 1, 2017

This report was funded by the U.S. Department of Health and Human Services under contract number HHSM-500-2012-00009I Task Order HHSM-500-T0009.

Contents

I. Executive Summary

The public-private, bipartisan commitment to improve healthcare quality and reduce healthcare spending remains strong. Performance measurement is an integral part of achieving these goals. Current reforms to healthcare delivery and value-based payment systems, as well as proposed market-oriented strategies to enhance the value of healthcare and reduce the measurement burden on providers, all rely on good, widely trusted, evidence-based quality measures. Measures of quality and safety support transparency, catalyze improvements, help to gauge the success of reform efforts, and ensure that patients receive high-quality, cost-efficient care. In short, quality measures help Americans to know that the care they are receiving is safe and effective.

The National Quality Forum (NQF) is an independent organization that brings together public- and private-sector stakeholders from across the healthcare spectrum to determine the measures that drive improvement in the nation's health. Importantly, NQF facilitates private-sector recommendations for quality measures used in federal programs, provides guidance to reduce redundant or unnecessary measures used in these programs, advances the science of performance measurement, and identifies and addresses critical clinical and cross-cutting areas, called gaps, where measures are too few or nonexistent.

Through two federal statutes and several extensions, Congress has recognized the role of a "consensus based entity" (CBE), currently NQF, in helping to forge agreement across the public and private sectors about what to measure and improve in healthcare. The 2008 Medicare Improvements for Patients and Providers Act (MIPPA) (PL 110-275) established the responsibilities of the consensus-based entity by creating section 1890 of the Social Security Act. The 2010 Patient Protection and Affordable Care Act (ACA) (PL 111-148) modified and added to the consensus-based entity's responsibilities. The American Taxpayer Relief Act of 2012 (PL 112-240) extended funding under the MIPPA statute to the consensus-based entity through fiscal year 2013. The Protecting Access to Medicare Act of 2014 (PL 113-93) extended funding under the MIPPA and ACA statutes to the consensus-based entity through March 31, 2015. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) (PL 114-10) extended funding to the CBE for quality measure endorsement, input, and selection for fiscal years 2015 through 2017. Bipartisan action by numerous Congresses over numerous years has reinforced the importance of the role of the CBE.

In accordance with section 1890 of the Social Security Act, NQF, in its designation as the CBE, is charged to report annually on its work to Congress and the Secretary of the Department of Health and Human Services (HHS).

As amended by the above laws, the Social Security Act (the Act)—specifically section 1890(b)(5)(A)—mandates that the entity report to Congress and the Secretary of the Department of Health and Human Services (HHS) no later than March 1st of each year.

The report must include descriptions of:

1) how NQF has implemented quality and efficiency measurement initiatives under the Act and coordinated these initiatives with those implemented by other payers;

2) NQF's recommendations with respect to an integrated national strategy and priorities for health care performance measurement in all applicable settings;

3) NQF's performance of the duties required under its contract with HHS (Appendix A);

4) gaps in endorsed quality and efficiency measures, including measures that are within priority areas identified by the Secretary under HHS' national strategy, and where quality and efficiency measures are unavailable or inadequate to identify or address such gaps;

5) areas in which evidence is insufficient to support endorsement of measures in priority areas identified by the National Quality Strategy, and where targeted research may address such gaps; and

6) matters related to convening multistakeholder groups to provide input on: a) the selection of certain quality and efficiency measures, and b) national priorities for improvement in population health and in the delivery of healthcare services for consideration under the National Quality Strategy.[1]

This eighth annual report, titled *NQF Report on 2016 Activities to Congress and the Secretary of the Department of Health and Human Services*, highlights and summarizes the work that NQF performed between January 1 and December 31, 2016 under contract with HHS in the following six areas:

- Recommendations on the National Quality Strategy and Priorities;
- Quality and Efficiency Measurement Initiatives (Performance Measures);
- Stakeholder Recommendations on Quality and Efficiency Measures;
- Gaps on Endorsed Quality and Efficiency Measures across HHS Programs;
- Gaps in Evidence and Targeted Research Needs; and
- Coordination with Measurement Initiatives by Other Payers.

The deliverables produced under contract in 2016 are referenced throughout this report, and a full list is included in Appendix A. Immediately following is a summary of NQF's work in 2016 in each of these aforementioned six areas. These topics are discussed in further detail in the body of the report.

Recommendations on the National Quality Strategy and Priorities

NQF brought together organizations in the public and private sectors to provide input into HHS's development of a National Quality Strategy (NQS) and related priorities for the nation. The NQS continues to inform NQF's work and the work of many organizations across the public and private sectors. In 2016 specifically, NQF concluded work in two areas of importance: population health within communities and the need to address gaps in quality measurement for home and community-based services (HCBS).

The Population Health project established a framework that defined 10 interrelated elements that could help multisector groups within a community work together to improve population health. The Home and Community-Based Services project addressed the gaps in performance measures for services provided outside of institutional settings. By identifying key aspects of home and community-based care that should be measured, this project laid the groundwork for future measure development needed to create an infrastructure for HCBS quality measurement and care delivery.

Quality and Efficiency Measurement Initiatives (Performance Measures)

Quality measures are central to the healthcare delivery and payment reform efforts currently underway. NQF's role and contribution to these reform efforts is to identify high-value measures that can be used in these reforms that can accurately discern the quality of provider performance. NQF's measurement science efforts in 2016 focused on three areas—attribution, variation of measures, and value-set harmonization—that aimed to streamline measures and address the challenges that hinder the use of measures by both public and private stakeholders.

As a consensus-based entity (CBE) under the Social Security Act, NQF sets standards by endorsing quality measures that meet rigorous criteria, ensuring that endorsed measures used in public and private quality improvement programs can accurately discern the quality of provider performance. Measure endorsement and maintenance projects ensure that NQF's portfolio of endorsed measures contains the most accurate and effective measures across a variety of clinical and cross-cutting topic areas. Public and private sector programs can use these measures for quality improvement and payment knowing that the measures have met criteria of scientific acceptability, usability, and feasibility.

In 2016, NQF endorsed 197 measures and removed 87 measures from its measurement portfolio.

NQF endorsed measures in order to:

Drive the healthcare system to be more responsive to patient/family needs. This work included continued projects in Person- and Family-Centered Care, Care Coordination, and Palliative and End-of-Life Care. Each project included the endorsement of patient-reported outcome performance measures and patient experience surveys.

Improve care for highly prevalent conditions. NQF's endorsement projects addressed conditions in the areas of cardiovascular care; renal care; endocrine conditions; behavioral health; eye care and ear, nose, and throat conditions; pulmonary/critical care; neurology; perinatal and reproductive health; infectious disease; and cancer.

Emphasize cross-cutting areas to foster better care and coordination. This work included endorsement projects in behavioral health, patient safety, cost and resource use, and all-cause admissions and readmissions.

Stakeholder Recommendations on Quality and Efficiency Measures

The Measure Applications Partnership (MAP) is a public-private partnership convened by NQF that provides input to HHS on the selection of quality and efficiency measures for performance-based payment and public-reporting programs in federal programs. The private sector also frequently adopts MAP's recommendations. MAP comprises representatives from more than 90 major, private-sector, stakeholder organizations and seven federal agencies. MAP's careful balance of private and public stakeholders' interests ensures that the federal government receives varied and thoughtful input on the selection, as well as guidance on the future removal of, performance measures in quality reporting and payment programs.

MAP's work fosters the use of an aligned or more uniform set of measures across federal and state programs and the public and private sectors. Alignment or use of the same measures helps better focus providers on key areas in which to improve quality; reduces wasteful data collection for hospitals, physicians, and nurses; and helps to curb the proliferation of similar, redundant measures which can confuse patients and payers.

During the 2015-2016 reporting period, MAP convened three care setting-specific workgroups—Clinician, Hospital, and Post-Acute Care/Long-Term Care (PAC/LTC)— to review proposed measures for use in Medicare, Medicaid, and private sector public-reporting and performance-based payment programs. For the 2015-2016 pre-rulemaking process, MAP reviewed 131 measures—recommending 109 either for use in a federal program or for continued development. MAP convened again in late 2016 to review approximately 100 measures for the 2016-2017 pre-rulemaking process.

MAP also convened task forces to address the unique needs of Medicare and Medicaid dual-eligible beneficiaries (also referred to as "Medicare-Medicaid enrollees") as well as to make recommendations on strengthening the Adult and Child Core Sets of Health Care Quality Measures for Medicaid and CHIP programs. With feedback from state leaders, MAP examined state experiences in implementing the Core Measure Sets and made recommendations on how to strengthen these sets going forward.

Gaps on Endorsed Quality and Efficiency Measures across HHS Programs

NQF undertakes several different activities to identify gaps in measures in order to alert measure developers and policymakers about pressing measurement needs. In 2016, the committees that NQF convened to review measures and make endorsement recommendations discussed gaps that exist in current project measure portfolios. Across the six completed projects in the areas of eye care and ear, nose, and throat conditions; neurology; palliative and end-of-life care; pediatrics; perinatal and reproductive health; and pulmonary and critical care, the committees identified measurement gap areas that include many costly, prevalent and difficult-to-manage chronic conditions.

MAP also provides guidance on measure gaps in federal programs. Each setting-of-care workgroup—Clinician, Hospital, and PAC/LTC—identifies specific gaps in quality and measurement for its care setting and related federal programs.

In addition, the MAP Medicaid task forces for the Adult and Child Core Sets as well as the MAP Workgroup on Dual Eligible Beneficiaries highlight quality and measurement gaps in relation to their specific population and programs. MAP highlights where measures do not yet exist for the most vulnerable patient populations and assesses the field's progress toward filling these high-priority measurement gaps.

Gaps in Evidence and Targeted Research Needs

NQF uses its deep knowledge of performance measurement in conjunction with the expertise of its committee members to identify gaps in evidence and further the field of measurement science. In 2016, NQF undertook projects related to electronic health records (EHR) and health information technology (Health IT), disparities, diagnostic accuracy, and care transitions in emergency departments.

EHRs and other Health IT systems have the potential to drive improvements in healthcare, reduce harm to patients, and make care better coordinated and less costly, but many barriers still hinder the promise of Health IT. In 2016, NQF continued work on HIT-related projects, including the prioritization and identification of Health IT patient safety measures, development of Common Formats used by providers to report patient safety events, enhancing interoperability between EHRs, and assessing the efficacy of telehealth designed to address these barriers.

NQF also launched a project that addresses vulnerable populations and new areas of measurement for which data are lacking. The recently launched NQF Disparities Committee works to better understand and explore the presence of disparities based on social risk factors, building upon NQF's previous leadership in this area. Two additional new projects started in 2016 will focus on improving diagnostic quality and care transitions in the emergency department—both areas for which measures currently do not exist.

Coordination with Measurement Initiatives by Other Payers

NQF also worked in partnership with payers, health plans, and other stakeholders to advance private-public efforts to align the use of quality measures. Measure alignment can reduce the burden of measurement by having providers collect data and report on the same metrics across multiple payers, rather than having to report on a different set of measures for each public or private health plan. Alignment also helps providers to focus better on key areas in which to improve quality and helps to curb the proliferation of similar, redundant measures which can confuse patients and payers.

NQF contributed technical guidance to the workgroups of the Core Quality Measures Collaborative, an initiative convened by America's Health Insurance Plans (AHIP) which included participation by the Centers for Medicare & Medicaid Services (CMS). The workgroups worked to identify a more limited, aligned set of measures that both the public and private sectors would use to evaluate the performance of physicians and other providers going forward.

NQF also launched a project to identify measures to support states' efforts to reform Medicaid payment and service delivery. The Medicaid Innovation Accelerator project authorized under the ACA section 3021 will provide the CMS Center for Medicaid and Children's Health Insurance Program (CHIP) Services (CMCS) with aligned measure sets across multiple states to support effort in four program areas: reducing substance use disorders, improving care for beneficiaries with complex care needs and high costs, promoting community integration through community-based, long-term care services and supports, and supporting the integration of physical and mental health.

II. Recommendations on the National Quality Strategy and Priorities

Section 1890(b)(1) of the Social Security Act (the Act), mandates that the consensus-based entity (entity) shall "synthesize evidence and convene key stakeholders to make recommendations . . . on an integrated national strategy and priorities for health care performance measurement in all applicable settings. In making such recommendations, the entity shall ensure that priority is given to measures: (i) that address the health care provided to patients with prevalent, high-cost chronic diseases; (ii) with the greatest potential for improving the quality, efficiency, and patient-centeredness of health care; and (iii) that may

be implemented rapidly due to existing evidence, standards of care, or other reasons." In addition, the entity is to "take into account measures that: (i) may assist consumers and patients in making informed healthcare decisions; (ii) address health disparities across groups and areas; and (iii) address the continuum of care a patient receives, including services furnished by multiple health care providers or practitioners and across multiple settings."[2]

In 2010, at the request of HHS, the NQF-convened National Priorities Partnership (NPP) provided input that helped shape the initial version of the National Quality Strategy (NQS) that HHS released in March 2011.[3] The NQS set forth a cohesive roadmap for achieving better, more affordable care, as well as better health. HHS accentuated the word "national" in its title, emphasizing that healthcare stakeholders across the country, both public and private, all play a role in making the NQS a success.

Annually, NQF has continued to further the National Quality Strategy by endorsing measures linked to the NQS priorities and by convening diverse stakeholder groups to reach consensus on key strategies for performance measurement and quality improvement. In 2016, NQF completed work in two emerging areas of importance that address the National Quality Strategy: population health within communities and measurement gap identification in home and community-based services.

Population Health

One of the National Quality Strategy's six priorities focuses on population health, which aims to "improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher-quality care." More specifically it emphasizes "working with communities to promote wide use of best practices to enable healthy living."[4]

Building on care delivery and payment reforms created by the Affordable Care Act (ACA), the federal government has greater opportunities to coordinate its improvement efforts with those of local communities in order to better integrate and align medical care and population health. Such efforts can help improve the nation's overall health and potentially lower costs.

In 2013, NQF convened a multistakeholder expert Committee to develop a practical road map for communities to coordinate resources to address the needs of their populations. In August 2016, NQF released the final deliverable of this three-year population health project. *Improving Population Health by Working with Communities: Action Guide 3.0* is a framework to help multisector groups work together to improve population health and includes 10 interrelated elements.

The guide serves as a practical manual, containing definitions, recommendations, real-world examples, and a range of resources to help communities achieve their shared goals and make lasting improvements in population health. The target audience of these recommendations includes community leaders, public health professionals, employers, healthcare providers, health plan administrators, policymakers, and consumer advocates interested in advancing population health. Communities and organizations focused on improving population health can use it as a starting point regardless of their existing structure.

A review of existing research and an assessment of initiatives from across the nation completed by NQF expert Committee members and staff identified the *Guide's* 10 elements. Over an 18-month period starting in September 2014, 10 field sites tested these elements to glean practical insights. The final publication builds upon two previously released versions of the guide and serves as a user-friendly guide for practitioners and organizations, with lessons learned and links to useful resources.

The 10 elements in the final guide include:

1) Collaborative self-assessment;
2) Leadership across the region and within organizations;
3) Audience-specific strategic communication;
4) A community health needs assessment and asset mapping process;
5) An organizational planning and priority setting process;
6) An agreed-upon, prioritized set of health improvement activities;
7) Selection and use of measures and performance targets;
8) Joint reporting on progress toward achieving intended results;
9) Indications of scalability; and
10) A plan for sustainability.

Home and Community-Based Services

Home and community-based services (HCBS) are vital to promoting independence and wellness for people with long-term care needs. The United States spends $130 billion each year on long-term services and support, a figure that is likely to increase dramatically as the number of Americans over age 65 is expected to double by the end of 2040.[5] Awarded in December 2014, this project spanned two years and concluded in September 2016 with the publication of the final report, *Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement*.[6]

This project offered an important opportunity to address the gap in performance measures related to high-quality HCBS. Unlike other aspects of the healthcare and social services system, HCBS lacks any core set of prioritized quality measures. Stakeholders have also not yet reached consensus as to what HCBS quality entails. NQF convened a multistakeholder Committee to:

- Create a conceptual framework for measurement, including a definition for HCBS;
- Perform a synthesis of evidence and an environmental scan for measures and measure concepts;
- Identify gaps in HCBS measures based on the framework; and
- Make recommendations for HCBS measure development efforts.

Over the course of the project, NQF issued three interim reports. The first interim report, published in July 2015, described the Committee's foundational work of creating an operational definition, identified characteristics of high-quality HCBS, recommended domains of measurement, and illustrated the function of quality measurement in improving HCBS.[7] The second interim report, published in

December 2015, assessed the current HCBS quality measurement landscape, based on a synthesis of existing evidence and an environmental scan of measures, measure concepts, and instruments used or proposed for use in HCBS programs.[8]

Published in June 2016, the third interim report focused on the identification of gaps in measurement and prioritized areas for measure development, and made recommendations to advance measurement within each domain.[9] The Committee examined the number and types of measures as well as the overall state of measurement within each domain to inform its deliberations about where measures should be developed. The Committee provided short-term, intermediate, and long-term recommendations for the following domains within HCBS to better identify current gaps and prioritize measure development in each gap area:

- Service delivery and effectiveness;
- Person-centered planning and coordination;
- Choice and control;
- Community inclusion;
- Equity;
- Workforce;
- Human and legal rights;
- Consumer leadership in system development;
- Holistic health and functioning; and
- System accountability.

Noteworthy short-term recommendations include expanding the use of quality measures derived from assessment tools related to falls, medications, and immunizations; assessing the scientific acceptability and expanding the use of existing quality measures related to housing and homelessness, and validating and expanding measure concepts related to meaningful activity in the community. An example of a measure related to meaningful community activity is the percent of HCBS consumers reporting that they are able to participate in community social activities.

The report's intermediate recommendations focus on greater tool and resource development, such as investment in developing person-centered outcome measures that assess service delivery; development of person-centered quality measures derived from the various consumer surveys currently in use in the states and healthcare systems; and the examination of administrative data as a way to obtain demographic information to advance healthcare improvement.

Long-term recommendations focus on infrastructure and system reform. These recommendations include developing the system processes needed for the collection of data related to workforce and family/caregiver support and leveraging technological innovations to develop systems for monitoring indicators of population health, as well as indicators of health and service disparities.

The final report issued in September 2016 details the Committee's recommendations for how to advance quality measurement in HCBS.[10] Through their deliberations, the Committee members

identified gaps in measurement within all the domains and subdomains and discussed the barriers and challenges to measuring HCBS quality. These barriers and challenges include:

- The lack of a uniform set of measures that allow for comparisons across states, programs, populations, providers, and settings;
- The lack of a systematic approach to the collection and reporting of data needed from HCBS programs in state and local systems;
- The variability across the numerous federal, state, local and privately funded programs with respect to reporting requirements and the flexibility offered to states and providers to establish their own quality measures to meet requirements; and
- The added administrative burden of data collection, management, reporting, and incorporation into quality improvement activities.

Keeping these gaps and challenges in mind, the Committee crafted global and domain-specific recommendations for how resources should be invested to further a systematic and standardized approach to HCBS quality measurement. The recommendations below are primarily intended for use by HHS, but do have wider applicability across HCBS stakeholders:

- Support quality measurement across all recommended HCBS domains and subdomains;
- Build upon existing quality measurement efforts;
- Develop and implement a standardized approach to HCBS data collection, storage, analysis, and reporting;
- Cultivate and implement technology standards, such as testing and universal assessment tools, which are structured to facilitate HCBS quality measurement;
- Obtain a complete view and understanding of HCBS quality using the appropriate balance of measure types and units of analysis;
- Develop a core set of standard measures for use across the federal, state, local, and private HCBS systems, along with a menu of supplemental measures that can be targeted to distinct populations, settings, and programs; and
- Convene a standing panel of HCBS experts to evaluate and approve candidate measures.

The work of the Committee marked an important milestone in the evolution of HCBS measurement. However, much work still needs to be done. The measures that capture the many facets of HCBS quality will need to be evaluated against NQF's endorsement criteria. The infrastructure supporting HCBS quality measurement and care delivery also needs further development and strengthening. The goal of this work is to assure that Americans receive the highest quality home and community-based services, while helping individuals lead healthy, meaningful lives in their own communities.

III. Quality and Efficiency Measurement Initiatives (Performance Measurement)

Section 1890(b)(2) and (3) of the Social Security Act requires the consensus-based entity (CBE) to endorse standardized healthcare performance measures. The endorsement process must consider whether measures are evidence-based, reliable, valid, verifiable, relevant to enhanced health outcomes,

actionable at the caregiver level, feasible for collecting and reporting, responsive to variations in patient characteristics, and consistent across types of healthcare providers. In addition, the CBE must establish and implement a process to ensure that measures endorsed are updated (or retired if obsolete) as new evidence is developed.[11]

Healthcare performance measures are used by a range of healthcare stakeholders for a variety of purposes. Measures help clinicians, hospitals, and other providers understand whether the care they provide their patients is optimal and appropriate, and if not, where to focus their improvement efforts. In addition, performance measures are increasingly used in public and private reporting and value-based purchasing programs to inform patient choice and drive quality improvement.

Working with multistakeholder committees to build consensus, NQF reviews and endorses healthcare performance measures used in public and private quality improvement programs. The federal government, states, and private sector organizations use NQF-endorsed measures to evaluate performance and to share information with employers, patients, and their families. Providers use measures to gauge quality improvement within their own practices. Together, NQF-endorsed measures serve to enhance healthcare value by ensuring that consistent, high-quality performance information and data are available, which allows for comparisons across providers as well as the ability to benchmark performance. Currently NQF has a portfolio of 629 NQF-endorsed measures which are in widespread use. Subsets of this portfolio apply to particular settings and levels of analysis.

Cross-Cutting Projects to Improve the Measurement Process

In 2016, NQF's measurement science work continued to focus on three cross-cutting areas in order to specifically address challenges that hinder the use of measures in the field and data collection efforts to drive quality improvement programs in both the public and private sectors.

The first of these projects focused on attribution, a process to determine which physicians or other providers are ultimately responsible for the quality and outcomes of the care patients receive. In its role as the CBE, NQF convened an expert Committee to better understand current attribution models used in measures to assign patient outcomes to individual providers and determine ways in which attribution might be improved.

Attribution

Attribution is the methodological process used in measurement to assign patients and their quality outcomes to providers. Currently, there is a wide range of attribution models in use across the nation and limited information about model specifics in some cases. This prompts concerns from providers and other accountable entities that some models may inaccurately assign accountability for patients or outcomes. These issues have become increasingly important as patients increasingly receive care from multiple providers or receive care from teams of clinicians. In addition, under new delivery and payment models, such as bundled payments and advanced primary care models recognized under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA),[12] health outcomes may not be exclusively the result of the actions of a single provider, complicating the use of performance measures linked to individual clinicians.

NQF convened an expert Committee in early 2016 to begin to examine attribution models and conduct an environmental scan of those currently in use. Based on the findings of this scan, the Committee concluded that greater standardization among attribution models is needed both to allow comparisons between models and for best practices to emerge. The Committee also raised concerns about the transparency of attribution data and assignment. The method and benchmarks used to assign attribution to an individual provider need to be communicated clearly to those providers being reviewed. Another concern of the Committee was the lack of an accountable unit to which providers could appeal the results of attributed performance should they feel that their performance assessment was wrongly assigned. To address these concerns, the Committee focused on developing principles, recommendations, and an Attribution Model Selection Guide, described below. These efforts provide a robust evidence-based foundation for further study of this complex and fundamental measurement issue.

The Committee agreed on the following set of guiding principles:

1. Attribution models should fairly and accurately assign accountability.
2. Attribution models are an essential part of measure development, implementation, and policy and program design.
3. Availability of data should be a fundamental consideration in the design of an attribution model.
4. Attribution models should be regularly reviewed and updated.
5. Attribution models should be transparent and consistently applied.
6. Attribution models should align with the stated goals and purpose of the program.

The Committee developed an Attribution Model Selection Guide (Guide) (see Appendix B) to inform measure developers, measure evaluation committees, and program implementers on the necessary elements of an attribution method. The Guide enables stakeholders to pursue a systematic approach in the development, selection, and evaluation of attribution models.

The Guide walks stakeholders through a four-part question analysis to select the model that is most appropriate for their needs, and articulates strengths and weaknesses of different approaches. The guiding questions are:

- What is the context and goal of the accountability program?
- How do the measures relate to the context in which they are being used?
- Who are the entities receiving attribution?
- How is the attribution performed?

Published in the final report, *Attribution—Principles and Approaches,* the Committee's recommendations build upon the guiding principles and the Attribution Model Selection Guide.[13] These recommendations are intended for those developing, selecting, and implementing attribution models in public- and private-sector accountability programs. The Committee provided five recommendations and stressed the importance of having recommendations that are both aspirational and drive the field forward. Specifically, the Committee recommended:

1. The Attribution Model Selection Guide should be used to evaluate the factors to consider in the choice of an attribution model.
2. Attribution models should be tested.
3. Attribution models should be subject to multistakeholder review.
4. Attribution models should attribute care to entities which can influence care and outcomes.
5. Attribution models used in mandatory public reporting or payment programs should meet minimum criteria, including transparent methods that produce consistent results, adequate sample size for reliability, robust data sources to fairly attribute patients/cases to entities, and an open and transparent adjudication process.

As policymakers are increasingly linking quality of care to payment, and new care delivery models are predicated on shared accountability, it is essential that attribution models accurately and fairly assign responsibility for patient outcomes. Accuracy in attribution will enhance longer term provider buy-in, encourage clinical behaviors that improve health outcomes, and strengthen the culture of team-based care.

Variation of Measure Specifications

The Variation in Measure Specifications project addressed how measures are sometimes altered in the field and examined whether resulting changes in measure specifications ultimately affect measure comparability.

Measures apply to a diverse range of clinical areas, providers, settings, data sources, and programs. Frequently, when implementing a measure, organizations slightly modify its specifications to respond to their own patient populations or data availability but with the intent of assessing the same quality issue. This variation leads to challenges, including confusion for stakeholders, a heightened burden of data collection on providers, and greater difficulty when trying to compare altered measures across providers.

To address this challenge, NQF convened a multistakeholder Expert Panel to provide leadership, guidance, and input on the following objectives and tasks:

- Conduct an environmental scan to assess the current landscape of measure variation;
- Develop a conceptual framework to help identify, develop, and interpret variations in measure specifications and evaluate the effects of those variations;
- Develop a glossary of standardized definitions for a limited number of key measurement terms, concepts, and components that are known to be common sources of variation in otherwise similar measures; and
- Provide recommendations for core principles and guidance on how to mitigate variation and improve comparability across new and existing measures.

The environmental scan assessed the nature and extent of measure variation. The scan focused on how, where, and why variation occurs across the healthcare system through both a literature review and key informant interviews. Literature on this topic was limited. The project only identified 65 articles and reports, many tangentially related to measure variation.

The key informant interviews proved more informative. NQF developed an interview guide to ensure that each interview consisted of a standard set of questions related to measure variation, along with a subset of modified questions to address unique perspectives and experiences of the informant. Key informants represented the federal government, payers, measure implementers, quality collaboratives, consumers, and EHR developers.

Key informants consistently addressed three interrelated areas: data, measure complexity and clarity, and transparency. These areas, and data in particular, were identified either as contributing factors that cause variation and/or as elements of a strategy to address variation and mitigate its impact. Limited data leads to variation that arises from efforts to increase sample size and to improve the completeness of data elements.

Measure complexity is an additional cause of variation. Key informants called out risk adjustment, case-mix adjustment, and changes in criteria before the measure is calculated to narrow the target population, known as "exclusions," as the areas of measure complexity most challenging for frontline providers such as physicians, nurses, and nurse practitioners. The key informants also identified measure clarity as another cause of variation—specifically descriptions for numerators and denominators that are either unclear or incomplete.

Lack of transparency regarding measure variation was the concern most commonly cited by the key informants. Transparency could include acknowledgement that a measure has been changed and, if possible, disclosure of the extent and type of variation as well as the impact of the variation.

Based on the feedback in the environmental scan and two rounds of public comment, the Expert Panel developed a classification system that employs two main principles for identifying variation and assessing its effects.

The significance of variation substantially depends upon whether measures are being used for internal quality improvement (QI) programs or accountability purposes. If a measure is modified by a healthcare provider for its own QI efforts, this variation is likely to have little impact on any other provider. However, if a measure is being used for external accountability programs, then a healthcare provider's modification may undermine the comparability of measure results between providers. Measure variation can present at any stage of a measure's lifecycle—ideation, development, selection, implementation and use, and reporting. Interventions to mitigate unnecessary variation or transparency of necessary variation differs depending on where and when the variation occurs.

To address variation, the Expert Panel developed strategies that intend to (1) prevent variation from occurring in the first place, or (2) mitigate the effects of variation.

These strategies include:

- *Access to measures.* The most direct way of preventing variation is to ensure access to measures and their specifications, including regular updates from measure stewards regarding both existing measures and measures under development.

- *Identifying measures.* Searching for and identifying measures that accurately address end-user needs minimizes downstream variation.
- *Feedback loops.* Feedback loops between measure implementers and measure stewards allow for clarification and communication of measure-specific needs. The bidirectional exchange of information also can help prevent duplicative efforts.
- *Implementation guidance.* Precise, unambiguous, and complete specifications should be available for all measure implementers to reduce variation.
- *Data collection strategies.* Measure implementers should strive to obtain the data needed to calculate the measure as specified rather than create a variant.
- *Data auditing.* Auditing can identify and address variation through measure compliance reviews, which may include assessment of data source reliability, coding, and data abstraction.,

Mitigation strategies should be applied when variation is unavoidable or if the benefits of variation outweigh the consequences of changing the measure. The strategy to mitigate variation includes:

- *Feedback loops.* Communication is fundamental to receiving clarifications and current measure-related information. Feedback loops can both prevent and mitigate variation.
- *Transparency.* Measure implementers should make known any changes made to the measure specifications.
- *Collaboration.* The creation of a forum or collaborative would permit implementers to discuss their measurement needs, their reasons for variation, and share information about steps taken to minimize variations or other lessons learned.
- *Benchmarking.* Benchmarking may allow measure implementers to assess the impact of variation and determine whether the changes are appropriate or necessary.

The Expert Panel created a framework which articulates a series of critical decision points experienced both by those developing measures and those implementing measures for accountability programs. This framework guides the user to decide whether or not variation is needed and how to mitigate the associated consequences. The framework offers the following principles:

- *Promote comparability.* Measures used for payment, public reporting, and other accountability purposes should provide information that enables meaningful comparison of measured entities.
- *Reduce Burden.* Measurement efforts should be aligned, harmonized, and streamlined wherever possible to avoid redundant or unnecessary data collection and reporting burden for providers.
- *Protect innovation.* Alignment and harmonization[14] of measurement continue to be an important goal; however, efforts to reduce variation should not stifle innovation in measurement activities.
- *Meeting end-user needs.* End users of measures should be able to meet their needs with measurement, and efforts to reduce measure variation should allow for sufficient flexibility in adaptation of measures where appropriate.

- *Specificity*. Measures used for accountability programs should include precise, unambiguous, and complete specifications that minimize the need for interpretation to ensure consistency in implementation.
- *Transparency*. For types of variation that are warranted, increased information about the nature, scope, and impact of measure variation is needed. This transparency will help identify where unnecessary variation occurs so it can be avoided or mitigated, preventing misleading comparisons between similar but not comparable measure results.

The Expert Panel published its recommendations and framework in a final report released in December 2016.[15] The Panel recognized that there are valid reasons for measure variation and that not all instances of variation can be avoided or mitigated. However, instances of variation in measure specifications should be fully and clearly disclosed to users of measure results, particularly where those measure results are used for public reporting, payment, or other accountability programs.

Value Set Harmonization

NQF completed a project that examined how the building blocks of electronic clinical quality measures (eCQMs)—called value sets—might be better harmonized to enhance the validity, reliability, and comparability of measures derived from EHRs.

Interoperable EHRs have the potential to enable the development and reporting of innovative performance measures that address critical performance and measurement gaps across settings of care. However, to achieve this future state, the field needs electronic clinical data standards and reusable "building blocks" of code vocabularies, known as value sets, to ensure measures can be consistently and accurately implemented across disparate EHR systems. A value set consists of unique codes and descriptions which are used to define clinical concepts—e.g., diagnosis of diabetes—and are necessary to calculate eCQMs.

NQF defines value set harmonization as the process by which unnecessary or unjustifiable variance will be reduced, and eventually eliminated, from common value sets in eCQMs by the reconciliation and integration of competing and/or overlapping value sets.[16]

Commenced in January 2015, the project convened an expert Committee to develop a value set harmonization test pilot and approval process that would promote consistency and accuracy in eCQM value sets.

The Committee's specific charge was to establish an overall approach to the harmonization and approval of value sets, including:

- The development of evaluation criteria;
- How to evaluate the results of the harmonization process; and
- Broader recommendations on how harmonized and approved value sets should be integrated into the measure endorsement process.

The Committee recommended five principles to apply both in the development and evaluation of value sets to ensure high quality.

1. A value set should align with the prevalent data model that currently supports the development of quality measures. The prevalent data model used in the eCQMs is the Quality Data Model (QDM),[17] which describes clinical concepts in a standardized format so individuals monitoring clinical performance and outcomes can clearly communicate necessary information. While the QDM has provided a foundation for the development and use of eCQMs, measure developers must understand the scope and the limitation of the relationship between the value sets and the QDM.
2. Value sets should be consistent with the model of clinical information found in the patient record. The model of clinical information found in the patient record depends on the type of EHR system used and how that system is configured. The value sets should be both feasible and usable to identify clinical data within the EHR, regardless of where the measure is used.
3. Terminology updates, expansion, and changes must be integrated into the value sets. A new value set must represent the most recent version of the terminology it is based upon. The Committee suggested that retired codes should still be included in the previous value set as they are critical to identifying historical information within a patient's record.
4. Quality measures being considered for NQF endorsement must have current and active value sets that align with the most recent version of the respective code system.
5. All value sets used in quality measures developed for inclusion in federal programs must be published in the Value Set Authority Center (VSAC)[18] The Committee concurred that it is reasonable to expect that value sets associated with a quality measure be published and have that designation when undergoing review for potential NQF endorsement.

The Committee detailed three recommendations for future action that emerged from their discussions. First, the Committee recommended the development of guidance around versioning of future value sets, with versions being part of a data management process to provide clarity between legacy and current value set iterations. The Committee also recommended the development of a way to recognize expired value sets to reduce potential redundancy and duplication. Finally, the Committee recommended that groups outside of NQF continue to do the development and evaluation of value sets.

More specifically, the Committee concluded that, ideally, value sets would be developed and evaluated independent of measures, against a standard set of criteria. The Committee agreed that there should be a set of requirements that an outside organization would use in determining whether a value set is of high quality, and this work would be completed prior to measure development and testing.[19]

Current State of NQF Measure Portfolio: Responding to Evolving Needs

NQF worked on 18 quality measure endorsement projects in 2016. Across these HHS-funded endorsement projects, NQF endorsed 197 measures and removed 87 measures from its portfolio. NQF's measure portfolio contains high-value measures across a variety of clinical and cross-cutting topic areas. NQF's multistakeholder committees—which include providers, payers, and other experts from across healthcare, as well as patients and consumers—review both previously endorsed and new measures

using rigorous evaluation criteria. The committees make recommendations for NQF to endorse or not endorse measures.

Working with expert multistakeholder committees,[20] NQF undertakes actions to keep its endorsed measure portfolio relevant. This may include removing endorsement for measures that fail to meet rigorous criteria, facilitating measure harmonization among competing or similar measures, or retiring measures that no longer provide significant opportunities for improvement. NQF encourages measure developers to submit measures that can drive more meaningful improvements in care, such as measures of patient-reported outcomes. While NQF pursues strategies to make its measure portfolio appropriately lean and responsive to real-time changes in evidence, it also proactively seeks measures from the field that will help to fill known measure gaps and that align with the NQS goals.

In 2016, NQF transitioned its measure endorsement committees to a standing committee format, so that committee members serve multiyear, staggered terms, as opposed to terms defined by the length of specific projects. This change has enabled committee members to become more familiar with NQF's measure portfolio and allows for greater flexibility for ad hoc measure review. It also improves the ability to address concerns that arise outside of regular project timelines.

Measure Endorsement and Maintenance Accomplishments

In 2016, NQF reviewed 101 new measures for endorsement and considered 140 existing measures for re-endorsement through NQF's periodic maintenance review. NQF added 67 new measures to its portfolio and continued endorsement of 130 measures. Seventy-four endorsed measures, including new and existing measures, are outcome measures, 111 are process measures, five are intermediate clinical outcome measures, three are composite measures, three are structural measures, and one is an efficiency measure.

All measures are evaluated by expert committees against the following NQF criteria:

1. Importance to Measure and Report
2. Reliability and Validity – Scientific Acceptability of Measure Properties
3. Feasibility
4. Usability and Use
5. Comparison to Related or Competing Measures

More information is available in the *Measure Evaluation Criteria and Guidance for Evaluating Measures for Endorsement.*[21]

Appendix A lists the types of measures reviewed in 2016 and the results of the review. Below are summaries of endorsement and maintenance projects completed in 2016, as well as projects that began but were not completed during the year.

Completed Projects

Eye Care and Ear, Nose, and Throat Conditions. More than 3.4 million (3 percent) of Americans 40 years or older are either blind or visually impaired, and millions more are at risk for developing vision

impairment and blindness.[22] At a cost of $139 billion in 2013, eye disorders and vision loss are among the costliest health conditions currently facing the United States.[23] In addition, hearing loss affects 1 in 10 Americans. In 2010, there were an estimated 20 million visits to otolaryngologists in America, and one-fifth of these visits were made by people under age 15.[24] Measures for eye care and ear, nose, and throat conditions (EENT) endorsed in this project were the first such measures NQF reviewed that apply across settings of care as opposed to specific settings (such as surgery or ambulatory care).

NQF's EENT Standing Committee evaluated a total of 24 measures, including seven eCQMs and 17 existing measures. The Committee recommended 21 measures for endorsement, including six eCQMs, and recommended placing one measure in inactive endorsement with reserve status. In addition, the Committee approved one eCQM for trial use. The designation for trial use enables measures that are ready for implementation in real-world settings but that lack reliability and validity data to achieve NQF endorsement to be used in the field for quality improvement. The use facilitates data collection required for NQF endorsement. The Committee recommended removing endorsement for one measure in the portfolio. Thirteen of the measures recommended for endorsement are for eye care, and eight are for ear, nose, and throat conditions.[25]

Neurology. Neurological conditions and injuries affect millions of Americans each year, taking a tremendous toll on patients, families, and caregivers.[26] For example, strokes are the fifth leading cause of death in the United States and cost billions of dollars in treatment, rehabilitation, and lost wages.[27] Alzheimer's disease, the most common form of dementia, was the fifth leading cause of death for adults ages 65 to 85, with costs expected to rise to nearly $500 billion annually by 2040.[28] Over 5 million Americans have epilepsy, with costs exceeding $15 billion annually.[29]

NQF's Neurology Standing Committee evaluated 26 measures, including 14 new measures and 12 existing measures. The Committee recommended nine measures for endorsement and six measures for inactive endorsement with reserve status. In addition, the Committee recommended approving one eCQM for trial use. The committee did not recommend 10 measures for endorsement, in part because some of these measures overlapped with other measures that were recommended for endorsement. Following this project, NQF's portfolio of neurology measures included 15 measures focused on stroke, dementia, and epilepsy.[30]

Palliative and End-of-Life Care. Improving both access to, and the quality of, palliative and end-of-life care is gaining importance because of the aging U.S. population and the projected increases in the number of Americans with chronic illnesses and disabilities. NQF's Palliative and End-of-Life Care Standing Committee evaluated eight new measures and 16 existing measures, and recommended 23 measures for endorsement. These recommended measures address physical aspects of care, ethical and legal aspects of care, and care of the patient at the end of life.

NQF's portfolio of 36 endorsed measures for palliative and end-of-life care address physical, psychological, and cultural aspects of care. Eighteen of the measures assess patient outcomes, and 13 are used in several federal programs, including the Hospice Quality Reporting Program, the Hospital Outpatient Quality Reporting (OQR) Program, and the Home Health Value-Based Purchasing Model.[31]

Pediatric. The Children's Health Insurance Reauthorization Act of 2009 (CHIPRA) accelerated interest in pediatric quality measurement and presented an unprecedented opportunity to improve the healthcare quality and outcomes of the nation's children, including the nearly 40 million children enrolled in Medicaid and/or the CHIP. CHIPRA also established the Pediatric Quality Measures Program.[32] The program, with support from the Agency for Healthcare Research and Quality (AHRQ) and CMS, funded seven Centers of Excellence to develop and refine child health measures in high-priority areas. After years of concerted effort, NQF reviewed an initial cohort of measures for endorsement in its 2015-2016 Pediatric Performance Measures project. Specifically, NQF's Pediatric Measures Standing Committee evaluated 23 new measures and one existing measure against NQF's evaluation criteria. The Committee recommended 15 measures for endorsement. It also cited concerns about the underdevelopment of quality measures for the care of children and the limited evidence base regarding testing limitations with the pediatric population.

During the Committee's discussion of the measures, several overarching issues of particular relevance to pediatrics emerged. The Committee extensively discussed the evidence requirements for pediatric patient-reported outcome performance measures (PRO-PMs) and patient experience-of-care measures, including the accuracy of the data when a parent reports for a child. The Committee also noted that it might be difficult to link patient experience-of-care measures to actual care provided, although it is important to understand which processes might be modified in order to improve experience of care.

Pediatric measures include measures related to patient safety, health and well-being, and behavioral/mental health. At the conclusion of the pediatric measures project, NQF's portfolio of pediatric measures consisted of 123 measures, including 40 outcome measures three of which rely on patient-reported data.[33]

Perinatal and Reproductive Health. For the 61 million women of reproductive age in the United States, access to high-quality care before, during, and between pregnancies, including pregnancy planning, contraception, and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.[34] Disparities in access to quality reproductive and perinatal care and in outcomes among racial and ethnic groups in the United States, as well as sociodemographic disparities, are major topics of interest surrounding this area of measurement.[35] Deaths during pregnancy and childbirth have doubled for all U.S. women in the past 20 years.[36] Research suggests that morbidity and mortality associated with pregnancy and childbirth are largely preventable through adherence to existing evidence-based guidelines.

NQF's Perinatal and Reproductive Health Standing Committee evaluated nine new measures and 15 existing measures. The Committee recommended 18 measures for endorsement.

In its deliberations, the Committee identified several overarching issues. These included multiple, similar neonatal infection measures that individually met endorsement criteria but collectively would be burdensome on providers and clinicians to report. The Committee encouraged measure developers to work together to create a single measure. The Committee also noted the need to identify potential unintended consequences of measures so that changes made to improve quality in response to one

measure would not worsen outcomes in another area. In addition, the Committee discussed advances in quality that highlight the success of previously endorsed measures as well as a need for measures that can drive further improvements in care as well as patient outcomes.

At the conclusion of this project, NQF's portfolio of perinatal and reproductive health measures consisted of 19 measures, including six outcome measures. The measures in the portfolio cover reproductive health, pregnancy, labor and delivery, high-risk pregnancy, premature birth and low birth weight, and postpartum health.[37]

Pulmonary and Critical Care. Chronic lower respiratory disease is the third leading cause of death in adults older than 18, and treatment and management of pulmonary conditions is very costly, with an estimated cost of $106 billion for asthma, COPD, and pneumonia in 2009.[38,39] Critical care is the specialized care of patients whose conditions are life-threatening and who require comprehensive care and constant monitoring. Every day, 55,000 critically ill patients are treated in the United States.[40] These patients usually receive treatments in one of the nation's approximately 6,000 intensive care units (ICUs).[41]

NQF's Pulmonary and Critical Care Standing Committee reviewed 22 measures, including 18 existing measures and four new measures. The Committee recommended 12 measures for endorsement and one measure for inactive endorsement with reserve status.[42] The Committee did not reach consensus on two measures and did not recommend an additional six measures for endorsement. The Committee discussed concerns about the use of endorsed measures in this portfolio, particularly the implementation of measures at a different level of analysis than that for which they are endorsed. For example, measures submitted for endorsement review for use at the population level may then be implemented at the practice level.

At the conclusion of this project, NQF's portfolio of pulmonary and critical care measures consisted of 30 measures, including 17 outcome measures, and spanned the domains of asthma, COPD, pneumonia, imaging, and critical care.[43]

Continuing Projects

All-Cause Admissions and Readmissions. Reducing avoidable hospitalizations and readmissions is a national priority. Despite the healthcare industry's focus in recent years on reducing preventable readmissions, challenges persist, especially for patients who suffer from chronic and comorbid conditions. Nearly one in five Medicare patients are readmitted to the hospital within 30 days of discharge, including many patients returning via the emergency room, costing more than $26 billion annually, by some estimates.[44] Measuring critical factors that affect the quality of patient care can provide valuable information to help providers better address patients' health needs after hospitalization and keep them from unnecessarily returning to the hospital.

In December 2016, NQF endorsed 30 new and existing hospital and post-acute care (PAC) readmissions measures. Two PAC measures were adjusted for socioeconomic status (SES) and other demographic factors, specifically, insurance status and marital status.

The measures are used in various private and federal quality reporting and value-based purchasing programs, including CMS's Hospital Readmissions Reduction Program (HRRP). Most of the measures were included in a groundbreaking NQF trial to determine whether NQF should permanently change its policy and allow measures to be risk adjusted for SES. In most cases, and with all of the measures involving hospital readmissions, updated risk adjustment models did not show significant effects of SES risk adjustment.

NQF will consider future availability of SES data for risk adjustment during annual measure updates. In addition, NQF is soliciting feedback on the implementation of the measures as they are used in federal programs. NQF's SES trial continues through April 2017, at which point NQF will decide whether to make SES adjustment of measures, under specific circumstances, its permanent policy.

NQF began a third phase of the all-cause admissions and readmissions project in October 2016. The project will review measures addressing all-cause admissions and hospital readmissions following hospitalization from heart failure, pneumonia, total hip arthroplasty (THA) and/or total knee arthroplasty (TKA). It will also include measures of emergency department use and acute care hospitalization during home health.

Cancer. Cancer is the second leading cause of death in the United States, taking the lives of more than 1,600 Americans each day.[45] More and more people are also living with cancer: Nearly 14.5 million Americans with a history of cancer were alive in 2014, and it is estimated that the number of cancer survivors in the United States will increase to almost 19 million by 2024.[46] The cost of treating cancer has also increased, from an estimated $157 billion in 2010 to an estimated $174 billion in 2020.[47] Breast, colon, lung, and prostate cancers are among the most frequently diagnosed and most deadly cancers in the United States.[48]

NQF's Cancer Standing Committee is reviewing 21 measures in the areas of breast cancer, colon cancer, chemotherapy, hematology, leukemia, prostate cancer, esophageal cancer, melanoma diagnosis, symptom management, and end-of-life care. NQF will issue a final report in January 2017.

Cardiovascular. Cardiovascular disease is the leading cause of death for men and women in the United States, accounting for approximately $312.6 billion in healthcare costs annually.[49] Coronary heart disease (CHD), the most common type of cardiovascular disease, accounts for one of every six deaths in the United States.[50] Hypertension—a major risk factor for heart disease, stroke, and kidney disease—affects one in three Americans, with an estimated annual cost of $156 billion in medical costs, lost productivity, and premature deaths.[51]

To accommodate the breadth of cardiovascular measures in NQF's measure portfolio, NQF is conducting its review of cardiovascular measures in this project, which began in 2013, in four phases. In phase 3 of this project, which concluded in May 2016, NQF's Cardiovascular Standing Committee evaluated 26 measures, including 13 maintenance measures and 13 new measures. Three measures were eCQM versions of previously endorsed paper-based measures. The Committee recommended 17 measures for endorsement and approved one eCQM for trial use. The Committee did not recommend seven

measures for endorsement and deferred one measure decision to the next phase of the cardiovascular project.

NQF launched the fourth phase of the cardiovascular project in October 2015. The Committee is reviewing six measures, including two newly submitted measures and four existing measures. NQF issued a final report on this fourth phase of the cardiovascular project in February 2017.

Cost and Resource Use. Healthcare spending in the United States is unmatched by any country in the world, without a corresponding increase in better outcomes or overall value.[52] Improving efficiency within the healthcare system holds the potential to both reduce the rate of cost growth and improve the quality of care provided. Key to achieving these goals is first understanding how and where healthcare dollars are spent. NQF is positioned to help answer that question by reviewing performance measures that evaluate healthcare costs and resource use.

NQF has endorsed several cost and resource use measures since beginning endorsement work in this area in 2009. The first phase focused on measures of cost that are not condition-specific, and evaluated both per-capita or per-hospitalization episode approaches. The second phase focused on cardiovascular condition-specific measures, and the third phase focused on pulmonary condition-specific measures.

In this fourth phase of work, which began in November 2016, NQF's Cost and Resource Use Standing Committee is reviewing three cost and resource use measures pertaining to all conditions.

Health and Well-Being. A patient's healthcare results and income can be significantly and negatively affected by social, environmental, and behavioral factors.[53] These and other socioeconomic factors contribute to an estimated 60 percent of deaths in the United States.[54] However, most U.S. healthcare dollars are spent on providing medical services, rather than on addressing the circumstances and impact of health and well-being that greatly affect health outcomes. Effective, targeted performance measures can help determine how successful population health improvement initiatives are and help focus future health improvement efforts.

As an extension of NQF's most recent Population Health Endorsement Maintenance project, the multiphase Health and Well-Being project seeks to identify and endorse measures that can be used to assess health and well-being across all levels of analysis, including healthcare providers and communities.[55] This project evaluates measures that assess health-related behaviors, community-level indicators of health and disease, primary prevention and screening, practices to promote healthy living, community interventions, and modifiable social, economic, and environmental determinants of health with a demonstrable relationship to health and well-being.

Phase 3 of this project began in October 2015. NQF's Health and Well-Being Standing Committee reviewed new and previously endorsed measures of physical activity, cervical and colorectal cancer screenings, and adult and childhood vaccinations. NQF will issue a final report in early 2017.

Patient Safety. Although the healthcare industry has made major improvements in measuring and addressing patient harms, tens of thousands of preventable injuries to patients still occur each year, and

many of these harms have dire consequences. Adverse events can take many forms, including healthcare-associated infections (HAI), medication errors, falls, pressure ulcers, and other potentially avoidable occurrences. On any given day, about 1 out of every 20 hospitalized patients has an HAI, costing up to $33 billion annually.[56] While there have been significant achievements in measurement of patient safety, numerous gaps remain.[57] There is also a recognized need to expand patient safety measures across settings of care.

NQF-endorsed patient safety measures are important tools for tracking and improving patient safety performance in U.S. healthcare. NQF-endorsed patient safety measures are used in many quality improvement, public reporting, and accountability programs across the country. NQF's endorsed safe practices[58] and list of Serious Reportable Events (SREs)[59] have provided important guidance to improving healthcare nationally, across settings of care. However, gaps persist in the measurement and assessment of patient safety.

NQF endorsed 22 patient safety measures in a second cycle of recent patient safety work that ended in February 2016. Those measures assess a range of issues, from patient falls to nursing hours to rates of pressure ulcers and antimicrobial use. NQF endorsed an additional three patient safety measures in 2016 after an ad hoc review of these three measures that resulted in measure updates.

In a third phase of work that is expected to be finished in March of 2017, it is anticipated that NQF's Patient Safety Standing Committee will recommend 12 measures for endorsement and one eCQM for trial use. Three of the measures are intended to help address the inappropriate prescribing and use of opioids in people who do not have cancer.

Person- and Family-Centered Care. Ensuring that patients and their families are engaged partners in care is one of the core priorities of the National Quality Strategy and is a focus of significant efforts in the healthcare sector. Person- and family-centered care encompasses patient and family engagement in care, including shared decision making, preparation and activation for self-care management, and the outcomes of interest to the patient receiving healthcare services. These interests include health-related quality of life, functional status, symptoms and symptom burden, and experience with care.

NQF endorsed 10 measures focused on assessing patients' experience with care in the first phase of this project. In the second phase, NQF endorsed 28 measures focused on clinician- and patient-assessed functional status. NQF reviewed 13 measures, including 12 new measures, in the project's third phase. A final report is expected in early 2017.

Renal. More than 20 million adults (10 percent of the population) in the United States have chronic kidney disease (CKD), which is even more prevalent among adults with high blood pressure and diabetes.[60] Untreated, CKD can result in end-stage renal disease (ESRD) and a host of other health complications.[61] Currently, over a half a million Americans are diagnosed with ESRD. ESRD is the only chronic disease covered by Medicare for people under the age of 65.

NQF's Renal Standing Committee examined three new measures and three previously endorsed measures that address conditions, treatments, interventions, or procedures related to kidney disease, end-stage renal disease, and other conditions. A final report is expected in early 2017.

Surgery. The rate of surgical procedures continues to increase annually. The rate of procedures performed in freestanding ambulatory surgery centers increased by 300 percent in the 10-year period from 1996 to 2006.[62] In 2006, an estimated 53.3 million surgical and nonsurgical procedures were performed in U.S. ambulatory surgery centers, both hospital-based and freestanding.[63] In 2010, 51.4 million inpatient procedures were performed in nonfederal hospitals in the United States.[64] These data, and the potential for unintended consequences they portend, continue to explain the intense interest in measurement of surgical events and improvements.

The surgery measure portfolio is one of NQF's largest and addresses cardiac, vascular, orthopedic, urologic, and gynecologic surgeries. It includes adult, child, and congenital measures, as well as perioperative safety, care coordination, and a range of other clinical or procedural subtopics. Many of the measures in the portfolio are used in public and/or private sector accountability and quality improvement programs. However, while significant strides have been made in some areas, gaps remain in procedure areas as well as for measures that convey overall surgical quality, shared accountability, and patient focus.

NQF's Surgery Standing Committee reviewed 24 measures and recommended 16 for endorsement. NQF anticipates issuing a final report in March 2017.

New Projects in 2016

Behavioral Health. Behavioral healthcare refers to treatments and services for individuals at risk of, or suffering from, mental, behavioral, or addictive disorders such as substance abuse, post-traumatic stress disorder, depression, and anxiety disorders. Behavioral health issues, conditions, and treatments are a leading cause of disability and a source of rising healthcare costs in the United States. Currently, behavioral health issues cost the healthcare system and employers billions of dollars. Better measures of the quality of behavioral healthcare services can help ensure that people receive timely, coordinated, and effective care that ultimately leads to better outcomes and improved overall health.

NQF has endorsed 47 performance measures related to behavioral health, specifically focused on mental health and substance abuse. This project, which began in September 2016, will review five new measures and 12 previously endorsed measures. These measures address alcohol and substance abuse, opioid use, tobacco use, attention-deficit/hyperactivity disorder (ADHD), and depression. NQF will issue a final report in September 2017.

Care Coordination. Care coordination is increasingly recognized as fundamental to improving patient outcomes and is seen as a bedrock of effectively run healthcare systems. Poorly coordinated care can lead to unnecessary suffering for patients, avoidable readmissions and emergency department visits, increased risk of medical errors, and higher costs. Persons with chronic conditions and multiple co-morbidities and their families and caregivers are particularly vulnerable when care is not coordinated or integrated.

NQF completed several projects in this area over the past decade to provide guidance and measurement of care coordination. These projects include defining and providing a framework for how to measure the quality of care coordination, endorsement of 25 preferred practices and 10 performance measures in 2010, and additional measure endorsement projects in 2012 and 2015.

In this most recent project, which began in September 2016, NQF's Care Coordination Standing Committee is reviewing seven measures, including five previously endorsed measures. NQF will issue a final report in September 2017.

Infectious Disease Project. The United States spends more than $120 billion annually to treat infectious diseases, which account for 3.9 million hospital visits per year.[65,66] Effective quality measures support national efforts to advance treatment of infectious disease and improve patient safety and healthcare outcomes.

NQF's Infectious Disease Standing Committee is reviewing 16 previously endorsed measures that address care for HIV/AIDS, sexually transmitted infections, hepatitis, adult and pediatric respiratory infections, and sepsis. NQF will issue a final report in September 2017.

IV. Stakeholder Recommendations on Quality and Efficiency Measures and National Priorities

Section 1890(b)(5)(A)(iv) of the Social Security Act requires the CBE to include in this report a description of annual activities related to multistakeholder group input on gaps in endorsed quality and efficiency measures, which shall include measures that are within priority areas identified by the Secretary under the national strategy ... and where quality and efficiency measures are unavailable or inadequate to identify or address such gaps.

Measure Applications Partnership

Under section 1890A of the Act, HHS is required to establish a pre-rulemaking process under which a consensus-based entity (currently NQF) would convene multistakeholder groups to provide input to the Secretary on the selection of quality and efficiency measures for use in certain federal programs. The list of quality and efficiency measures HHS is considering for selection is to be publicly published no later than December 1 of each year. No later than February 1 of each year, the consensus-based entity is to report the input of the multistakeholder groups, which will be considered by HHS in the selection of quality and efficiency measures.[67]

MAP provides a forum for the private and public sectors to reach consensus with respect to use of measures to enhance healthcare value in federal programs. MAP recommendations are also adopted by the private sector. MAP's efforts help to facilitate the alignment or use of the same measures across multiple federal programs. Alignment of measures helps providers better identify key areas in which to improve quality; reduces wasteful data collection for hospitals, physicians, and nurses; and helps to curb the proliferation of redundant measures which could confuse patients and payers.

For detailed information regarding the MAP representatives, criteria for selection to MAP, and rosters, please see Appendix D.

In addition, MAP serves as an interactive vehicle by which the federal government can solicit feedback from stakeholders regarding measures for potential use in federal reporting and payment programs. This approach augments the traditional rulemaking of CMS and HHS, allowing the opportunity for substantive input to HHS in advance of rules being issued. Additionally, MAP provides a unique opportunity for public- and private-sector leaders to develop and then broadly review and comment on a future-focused performance measurement strategy, as well as provides shorter term recommendations for that strategy on an annual basis. MAP strives to offer recommendations that apply to and are coordinated across settings of care; federal, state, and private programs; levels of attribution and measurement analysis; and payer type.

Since 2012, MAP has provided guidance at the request of HHS on the measures to be included in Medicare programs, as well as Medicaid and CHIP nationwide. Measures recommended by MAP for Medicare are considered for use in mandatory or voluntary reporting programs, while the measures in the Adult and Child Core Sets for Medicaid/CHIP are considered for voluntary reporting by individual states. MAP also provided guidance to HHS on the use of performance measures to evaluate and improve care of dual eligible beneficiaries, who are enrolled in both Medicaid and Medicare—a distinct population with complex and often costly medical needs.

2016 Pre-Rulemaking Input

MAP completed its deliberations for the 2015-16 rulemaking cycle with the publication of its annual report in February 2016, marking MAP's fifth review of measures for HHS programs. The MAP Measure Selection Criteria guides the review process for the measures under consideration (see Appendix C). During the pre-rulemaking review process, MAP considers the alignment of measures across HHS programs and with private sector efforts. MAP also incorporates measure use and performance information into its decision making to provide CMS with specific recommendations about the best use of available measures. MAP looks at the entirety of the program and measures included to identify measure gaps.

During this pre-rulemaking process, MAP examined 131 unique measures for potential use in 19 different federal health programs, covering clinician, hospital and post-acute care settings (see Appendix D). NQF incorporated process improvements into MAP this year, including the addition of a one-day in-person meeting for the MAP Coordinating Committee to provide guidance on identifying gaps and the concept of alignment, refinements to the preliminary analysis of measures conducted by NQF staff, and updates to the consensus building and voting process.

Conducted by staff, the preliminary analysis provides MAP members with a succinct profile of each measure to serve as a starting point for MAP discussions. The preliminary analysis asks a series of questions to evaluate the appropriateness for each measure under consideration (MUC):

- Does the MUC meet a critical program objective?
- Is the MUC fully developed?

- Is the MUC tested for the appropriate settings and/or level of analysis for the program? If no, could the measure be adjusted to use in the program's setting or level of analysis?
- Is the MUC currently in use? If yes, does a review of its performance history raise any red flags?
- Does the MUC contribute to the efficient use of measurement resources for data collection and reporting and support alignment across programs?
- Is the MUC NQF-endorsed for the program's setting and level of analysis?

MAP used a three-step process for pre-rulemaking deliberations:

1. Develop program measure set framework;
2. Evaluate measures under consideration for potential inclusion in specific programs and what they would add to the measure sets; and
3. Identify and prioritize measurement gaps for programs and care settings.

More specifically, in October 2015, MAP workgroups convened via webinar to consider each program in the workgroup-specific setting with the goal of identifying its specific measurement needs and critical program objectives. The workgroup recommendations on critical program objectives were then reviewed by the Coordinating Committee.

MAP workgroups met in person in December 2015 to evaluate the measures under consideration for a given setting or level of analysis and made recommendations for use of those measures in various federal programs. The Coordinating Committee reviewed the workgroup recommendations and public comment received on these recommendations in January 2016.

MAP Clinician Workgroup (2015-2016). Over the past four years, MAP has provided multistakeholder, pre-rulemaking input to CMS on clinician-level measures for the Physician Quality Reporting System (PQRS), the Value-Based Payment Modifier (VM) program, and the EHR Incentive Program. This year marked the first time MAP reviewed measures under only two programs: the Merit-Based Incentive Payment System (MIPS) created by the MACRA and the Medicare Shared Savings Program (MSSP).

MIPS is a new program that combines parts of the PQRS, VM, and EHR Incentive Program into one single program that will adjust MIPS eligible clinicians' Medicare payments based on performance.[68]

The MSSP is designed to facilitate coordination and cooperation among providers to improve the quality of care for Medicare Fee-For-Service (FFS) beneficiaries and reduce the rate of growth in healthcare costs.[69] Eligible providers and suppliers may participate in the Shared Savings Program by creating or participating in an Accountable Care Organization (ACO).[70]

Scores on clinician measures reported to the MSSP and the MIPS program are to be publicly reported and available on the Physician Compare website, allowing consumers to use this information in the selection of a clinician. With this in mind, the MAP Clinician Workgroup made it a guiding principle to identify and recommend measures that are meaningful to consumers and purchasers.

As part of the transition from multiple quality programs to the consolidated MIPS program, clinician-level measures on the MUC list during this pre-rulemaking cycle were proposed for potential implementation to collect data in 2017 and for payments to be issued in 2019 under MIPS.

With the addition of the measures for the MIPS program to the MUC list 2015-2016, CMS identified key, related program needs and priorities, including outcome measures, measures relevant to specialty providers, domains of person and caregiver experience and outcomes, communication and care coordination, and appropriate use and resource use. CMS also noted a preference for eCQMs, measures that do not duplicate existing clinician measures, and measures with opportunities for improvement, i.e., those that are not "topped out."

The MAP Clinician Workgroup considered 60 measures for use in the MIPS program—only 12 measures were not recommended for further consideration and two measures were withdrawn by CMS. It is noteworthy that the percentage of outcome measures for clinicians serving Medicare beneficiaries rose from approximately 25 percent of measures available in the old PQRS system to approximately 37 percent of measures recommended for the MIPS program. The workgroup also considered five measures for addition to the MSSP. Discussion centered on several proposed composite measures. Each of these measures was proposed for use in both the MIPS program and the MSSP.[71]

MAP Hospital Workgroup (2015-2016). This MAP Workgroup reviewed measures under consideration for the following hospital or other setting-specific programs:

- Hospital Inpatient Quality Reporting (IQR) Program and Medicare and Medicaid EHR Incentive Program for Hospitals and Critical Access Hospitals (CAH) (Meaningful Use);
- Hospital Value-Based Purchasing (VBP) Program;
- Hospital Acquired Condition Reduction Program (HACRP);
- Hospital Outpatient Quality Reporting (OQR) Program;
- Ambulatory Surgical Center Quality Reporting (ASCQR) Program;
- Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (PCHQR)
- Inpatient Psychiatric Facility Quality Reporting (IPFQR) Program; and
- End-Stage Renal Disease Quality Incentive Program (ESRD QIP).

Through consideration of measures across these eight programs, the MAP Hospital Workgroup identified several overarching goals, including (1) identifying measures to improve quality across patient-focused episodes of care, (2) engaging patients and their families as partners in care, and (3) driving improvement for all.

The MAP Hospital Workgroup recognized the need to encourage performance measurement to foster better coordination across the care continuum. MAP noted that current measures tend to focus on narrow clinical topics, but performance measurement needs to evolve to use measures that capture the "big picture": A more integrated set of measures could provide consumers and purchasers with a better overall picture of quality.

In particular, the Workgroup noted the need for closer connections and better integration of hospitals with post-acute care (PAC) and long-term care (LTC) settings. The current PAC and LTC measures vary significantly by setting, creating confusion for consumers trying to assess where to seek ongoing care after hospital discharge. The Workgroup noted that healthcare systems need measurement that can spur better care coordination and data sharing to avoid unnecessary hospital readmissions. Better interconnectivity and information sharing could empower providers with more complete information about their patients, including vital information about a person's history, to help reduce errors and adverse treatment interactions.

The MAP Hospital Workgroup underscored the importance of strategic, cross-cutting measures, as having a large number of measures in each program can dilute their individual impact. More integrated measurement that assesses quality across the system could help to ensure high-value information for all stakeholders.

The Workgroup also stressed the importance of shared decision making with patients and their families and the necessity for providers to commit to supporting their patients' decisions. Subsequently, providers should clearly document a person's goals and preferences and make sure follow-up care reflects those decisions and preferences. MAP also acknowledged patient accountability as an important part of decision making—cautioning that people vary in their ability and desire to engage fully in their care.

When reviewing the measures under consideration, MAP focused on consumers and asked: What information would be truly meaningful? What would help a consumer choose a provider? What outcomes do people really care about? Guided by this consumer focus, MAP recommended measures addressing issues such as patient activation, goals, and quality of life.

The MAP Hospital Workgroup noted that there is a need for better measures in perinatal and pediatric care as these patients represent almost 25 percent of hospital discharges. However, Medicare programs such as the Hospital IQR and OQR Programs do not cover key services provided to these populations such as obstetrical services and primary care clinics, which are instead provided by Medicaid. MAP suggested that CMS consider expanding the populations covered by the programs reviewed by the Hospital Workgroup to include the entirety of the population seen in the hospital setting. Including broader populations could help more consumers, purchasers, and payers with related decision making as well as give providers more information to help them improve care.[72]

MAP made the following measurement recommendations for the specific programs below:

- Hospital Inpatient Quality Reporting (IQR) Program and Medicare and Medicaid EHR Incentive Program for Hospitals and Critical Access Hospitals (CAH) (Meaningful Use) – MAP reviewed 15 measures, and recommended the inclusion of nine measures in the programs;
- Hospital Value-Based Purchasing (VBP) Program – MAP reviewed 10 measures and recommended the addition of three measures;

- Hospital Acquired Condition Reduction Program (HACRP) – MAP discussed updates to two measures currently included in the program, acknowledging that the updates were improvements over the versions currently in the program;
- Hospital Outpatient Quality Reporting (OQR) Program – MAP reviewed and recommended the inclusion of two measures;
- Ambulatory Surgical Center Quality Reporting (ASCQR) Program – MAP reviewed one measure but did not recommend that one measure should be included in the program;
- Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (PCHQR) Program – MAP reviewed and recommended the inclusion of five measures, four of which are updates to current measures in the program;
- Inpatient Psychiatric Facility Quality Reporting (IPFQR) Program – MAP reviewed and supported the addition of two measures; and
- End-Stage Renal Disease Quality Incentive Program (ESRD QIP) – MAP reviewed seven measures but recommended the inclusion of only three in the program.

MAP PAC/LTC Workgroup (2015-2016). The MAP PAC/LTC Workgroup reviewed MUCs for six setting-specific federal programs addressing post-acute care (PAC) and long-term care (LTC);

- Impatient Rehabilitation Facility Quality Reporting Program (IRF QRP);
- Long-Term Care Hospital Quality Reporting Program (LTCH QRP);
- Skilled Nursing Facility Quality Reporting Program (SNF QRP);
- Skilled Nursing Facility Value-Based Purchasing Program (SNF VBP);
- Home Health Quality Reporting Program (HH QRP); and
- Hospice Quality Reporting Program (Hospice QRP).

In the PAC/LTC coordination strategy, the MAP PAC/LTC Workgroup defined high-leverage areas for performance measurement and identified core measure concepts to address each of the high-leverage areas. These core-measure concepts are identified in order to address the areas that will ultimately lead to the greatest quality improvement and development in a setting that is relatively new to quality measurement.

In this year's pre-rulemaking work, MAP revisited these PAC/LTC core concepts to ensure that they remain effective and meaningful in the rapidly changing area of PAC and LTC measurement. The MAP PAC/LTC Workgroup added quality of life as a highest-leverage area and identified symptom management, social determinants of health, autonomy and control, and access to lower levels of care as other high-leverage areas. The Workgroup stressed the need to move beyond concepts addressing processes to concepts that address outcomes.

Measures reviewed by the MAP PAC/LTC Workgroup during this cycle addressed the following enumerated domains in the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014: medication reconciliation; resource use measures, including total estimated Medicare spending per beneficiary; discharge to community; and all-condition, risk-adjusted, potentially preventable hospital readmissions rates.

Overall, MAP determined that the measures under consideration represented significant progress toward promoting quality in PAC settings, but there was some caution in considering the costs-per-beneficiary measures as indicators of quality. MAP recommended ensuring cost measures be tied to quality concepts to promote measuring "value" versus "cost" alone.

MAP PAC/LTC Workgroup reviewed a total of 33 measures under consideration and encouraged development 32 measures for use in federal programs. Only one measure was not encouraged for further consideration. MAP noted that the MUCs are moving in the right direction to close gaps and address the PAC/LTC core concepts; they encouraged the further development of all but one of the measures under consideration for inclusion in these programs.[73]

- Impatient Rehabilitation Facility Quality Reporting Program (IRF QRP) – MAP recommended continued development of all five measures;
- Long-Term Care Hospital Quality Reporting Program (LTCH QRP) – MAP recommended the continued development of all seven measures;
- Skilled Nursing Facility Quality Reporting Program (SNF QRP) – MAP recommended the continued development of all 11 measures;
- Skilled Nursing Facility Value-Based Purchasing Program (SNF VBP) – MAP recommended the continued development of the one measure considered;
- Home Health Quality Reporting Program (HH QRP) – MAP recommended the continued development of six of the seven measures; one measure it did not recommend for continued development; and
- Hospice Quality Reporting Program (Hospice QRP) – MAP recommended the continued development of the two measures submitted for consideration.

2016 Input on Quality Measures for Dual Eligibles

In support of the NQS aims to provide better, more patient-centered care as well as improve the health of the U.S. population through behavioral and social interventions, HHS asked NQF to again convene a multistakeholder group via MAP to address measurement issues related to people enrolled in both the Medicare and Medicaid programs—a population often referred to as the "dual eligibles" or Medicare-Medicaid enrollees.

Nearly 11 million Americans are eligible for both Medicare and Medicaid.[74] These are among the nation's most vulnerable individuals, with more than two-thirds living below the federal poverty level and most having multiple chronic conditions that require high levels of care.[75,76] About a third of Medicare spending, or $500 billion, is spent each year on the 20 percent of beneficiaries that are dually eligible to participate in Medicaid.[77] Similarly, 34 percent of Medicaid spending, or $340 billion, is spent annually on 14 percent of Medicaid beneficiaries who are dually eligible to participate in Medicare.[78]

In August 2016, MAP released its seventh report addressing this population.[79] The report builds upon MAP's previous work to improve care for the dual eligible population and updates the Dual Eligible Beneficiaries Family of Measures.

The Family of Measures is a group of best available measures that is selected and recommended for use to address the needs of the dual eligible population and to identify high-leverage opportunities for improvement across the continuum of care. With this year's updates, the current Dual Eligibles Family now contains 74 measures that are a mixture of measure types (i.e., structure, process, outcomes) that cross settings and levels of analysis (e.g., individual provider versus population level). This year, MAP supported the removal of six measures and the addition of four measures to the Family of Measures.

Current approaches to quality measurement tend to focus on single clinical topic areas that are important; however, such approaches do not reflect the multiple complex and interrelated clinical and nonclinical needs of the dual eligible beneficiary population. Developing measures that address the complexities within the dual eligible beneficiary population is resource intensive. Future improvements in healthcare and management of dual eligible beneficiaries will require development of measures for patients managing multiple conditions as well as address the connection of these patients to all the necessary supports and services both in the clinical and nonclinical environments. Resources must be devoted to better promoting and measuring the integration and coordination of providers and services in their effectiveness in improving the health and well-being of dual eligible beneficiaries.

2016 Report on the Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid

Medicaid covers more than 80 million Americans and enables access to care for the nation's most vulnerable individuals, including low-income pregnant women and children, people with disabilities, and low income elderly.[80] In federal fiscal year (FFY) 2014, Medicaid covered a total of 44.3 million adults, including 27.1 million nonelderly adults, 6.3 million adults age 65 and over, and 10.9 million individuals who are blind/disabled.[81] Among the working-age adults enrolled in Medicaid, an estimated 57 percent are overweight, or have diabetes, hypertension, high cholesterol, or a combination of these chronic conditions.[82,83,84] In August 2016, MAP concluded its fourth review of the Adult Core Measure Set for Medicaid beneficiaries with the publication of *Strengthening the Core Set of Healthcare Quality Measures for Adults Enrolled in Medicaid, 2016*.[85]

The annual process of re-evaluating existing and newly proposed measures for the core set allows for a better understanding of the evolving Medicaid landscape, the measures in use, and how states engage with the program. MAP supported the continued use of all 28 measures contained in the 2016 Adult Core Set to advance the health and healthcare of adult Medicaid beneficiaries.

In addition, MAP supports or conditionally supports (pending NQF endorsement) the addition of six new measures to the core set. These six measures were considered a good fit for the core set and were selected out of a total of 14 measures discussed by the Adult Medicaid Task Force convened by NQF. These six new measures address the clinical areas of alcohol abuse prevention and screening, mental illness, drug and substance abuse, elective delivery, and medication management for asthmatic patients.

Reporting of at least some of the Adult Core Set measures increased to 34 states in FFY 2014 up from 30 states in FFY 2013.[86] The gradual addition of measures to the core set has allowed the states to build measure reporting infrastructure, as evidenced by the increase in the number of states voluntarily reporting on measures.

2016 Report on the Core Set of Healthcare Quality Measures for Children Enrolled in Medicaid/CHIP

Medicaid plays a key role in child and maternal health, financing healthcare services for approximately 48 percent of all births across the country.[87] Improving the health and healthcare of children enrolled in Medicaid and CHIP is an important opportunity and a priority for our nation.

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) requires the identification of a core set of healthcare quality measures for voluntary reporting by state Medicaid and CHIP programs. The 2016 Child Core Set contains 26 measures representing the diverse health needs of the Medicaid and CHIP enrollee population, spanning many clinical topic areas, such as oral health, behavioral health, and maternal and perinatal care. The measures are relevant to children from birth to age 18, as well as pregnant women.

In the report *Strengthening the Core Set of Healthcare Quality Measures for Children Enrolled in Medicaid and CHIP, 2016,*[88] released in August 2016, MAP supported the continued use of all but two of the current measures in the Child Core Set. The first measure recommended for removal—frequency of ongoing prenatal care—was cited as an ineffective tool for both accountability and quality improvement, as it most likely reflects environmental challenges women face when trying to obtain prenatal care, such as time off work and transportation. MAP also recommended the removal of a measure assessing child and adolescent access to primary care practitioners, because performance on the measure, which is not NQF-endorsed, was very high overall and presents a limited opportunity for improvement.

MAP also supported the addition of five new measures to the Child Core Set. These five measures were considered to be a good fit for the core set and were selected out of the 13 measures considered for inclusion by NQF's Child Medicaid Task Force. The use of these measures would strengthen the core set by promoting measurement of various high-priority quality issues, including maternity care, behavioral health, and sickle cell disease.

Similar to what has been observed with the Adult Core Set, voluntary reporting of at least some measures for the Medicaid and CHIP Child Core Sets has also increased, from 38 states in FFY 2012 to 41 states in FFY 2013 to 44 states in FFY 2014.

V. Gaps on Endorsed Quality and Efficiency Measures Across HHS Programs

Under section 1890(b)(5)(A)(iv) of the Act, the entity is required to describe in the annual report gaps in endorsed quality and efficiency measures, including measures within priority areas identified by HHS under the agency's National Quality Strategy, and where quality and efficiency measures are unavailable or inadequate to identify or address such gaps.

Gaps Identified in Completed Projects 2016

During their deliberations, NQF's endorsement standing committees discussed and identified gaps that exist in current project measure portfolios. Below are the gaps identified by these committees and included in related reports issued in 2016.

Eye Care and Ear, Nose, and Throat Conditions. The Committee identified numerous areas for which additional measure development is needed. Specifically, the gap areas noted include PRO-PMs after procedures and treatments to assess improvements in symptoms and functioning from the patient's perspective, composite measures related to specialist care, and appropriateness measures for procedures such as tonsillectomy, stapedotomy, tympanostomy tubes, sinus surgery, and sinus imaging. The Committee also noted cost and resource use measures for both eye care and ENT conditions, inappropriate use of medications for eye care such as medicated drops for glaucoma, appropriate use of antibiotics and antibiotic stewardship, and appropriate fitting of hearing aids as additional gap areas in this portfolio.[89]

Neurology. During its discussions, the Neurology Committee identified several areas for which additional measure development is needed. These areas include measures targeting neurological conditions, namely Parkinson's disease, multiple sclerosis, muscular dystrophy, Alzheimer's disease, and other dementias. Additionally, the Committee stressed the need for measures related to best practices for early diagnosis and treatment of neurological diseases, as well as measures that provide disparities data on disease and treatment. The portfolio also has need for more PRO measures as well as measures that continue to monitor for unintended consequences for specific populations.[90]

Palliative and End-of-Life Care. NQF's current portfolio of palliative and end-of-life care measures addresses many elements of the palliative and end-of-life framework; however, notable exceptions include a lack of measures addressing social aspects of care, bereavement, and measures applicable to the family or caregiver.

The Palliative and End-of-Life Care Committee specifically identified areas for which additional measure development is needed, including measures that differentiate specialty palliative care from primary (sometimes called "basic") palliative care, measures of palliative care for the pediatric and neonatal populations, and measures specific to diseases other than cancer such as COPD, end-stage heart disease, and dementia. The Committee also noted the need for measures that go beyond an assessment of social, cultural, and spiritual needs to capture treatment or follow-up activities related to these aspects of care and measures that assess how the environment in which the patient received care is conducive to their social, cultural, and spiritual needs. Gap areas also included measures related to advance care planning, measures that consider hospice stays of less than 30 days, and measures of treatment burden, financial burden, and treatment-related harm.[91]

Pediatric. Many priorities for quality measurement and improvement for pediatric care do not yet have metrics available to address them. More robust data are needed in order to develop measures and address pediatric gap areas. The Committee deliberated on the gaps identified by MAP in the 2015 review of the CHIP Child Core Set and concurred that these gaps were an accurate representation of the gaps in the NQF pediatric measure portfolio.

Specifically, these gaps areas identified by the Committee include care coordination, primarily in home and community-based care; social services coordination; cross-sector measures that would foster joint accountability with the education and criminal justice systems; screening for abuse and neglect; mental

health; overuse/medically unnecessary care/durable medical equipment; cost measures targeting children with chronic needs and families' out-of-pocket spending; sickle-cell disease; patient-reported outcome measures; and dental care access for children with disabilities (or stratification of current measures).[92]

Perinatal and Reproductive Health. The Committee identified the need for measures to assess normal, healthy pregnancies and babies, in part to assess and improve the quality of care that most patients and families are receiving, and in part to ensure that the majority of the population is not excluded from quality improvement and measurement. Many of the measures in this portfolio are focused on high-risk mothers and babies, yet the vast majority of pregnancies, deliveries, and newborns do not fall into this category.[93]

Pulmonary and Critical Care. The specialty areas for pulmonary and critical care include many prevalent and costly chronic conditions. During their deliberations, the Standing Committee identified where additional measure development is needed. These gaps in measurement include the following areas: acute pulmonary embolism management and outcomes; cystic fibrosis management and outcomes; acute respiratory distress syndrome and management, mechanical ventilation management and mobility in the ICU; sepsis management; and outcome measures such as sepsis mortality, discharge to long-term acute care hospitals with mechanical ventilations, and more accessible ICU mortality and length-of-stay measures appropriately adjusted for acuity.[94]

Measure Applications Partnership: Identifying and Filling Measure Gaps

In addition to its role in recommending measures to CMS in the pre-rulemaking process, MAP also provides guidance on measure gaps in the individual federal programs and measure portfolios. The individual MAP workgroups consult the Program Specific Measure Priorities and Needs document published by CMS prior to the commencement of workgroup deliberations.[95] In this document, CMS identifies high-priority domains in each of the federal programs for future measure consideration.

MAP Clinician Work Group (2015-2016)

The MAP Clinician Workgroup highlighted measure gaps across clinician-level programs and in particular noted the need for patient-centered measures, including patient-reported outcome measures, functional status measures, care coordination measures, and measures that incorporate patient values and preferences.

MAP noted that the principle of patient preference should apply not only to new measures, but also to existing measures, which could potentially be modified to include outcomes or processes that reflect patient preferences and shared decision making. Measures concerning end-of-life care would lend themselves especially well to such considerations. With regard to patient-reported measures, MAP noted that such measures should go beyond patients' experiences with the healthcare system and focus on the impact of healthcare on patients' health and well-being—it noted that measures sometimes focus on clinical success as defined by providers, while potentially losing sight of what patients regard as a success, e.g., mobility after knee surgery.

MAP expressed appreciation for the increase in measures of appropriate use or overuse that have been submitted for consideration, while recognizing that these measures remain a gap area and a priority for development. Many suggested looking to the American Board of Internal Medicine Foundation's *Choosing Wisely* campaign for direction in this area. MAP members also noted that measures of overuse should be paired with measures of quality and total cost-of-care measures so that consumers and purchasers can better understand the value of what they are getting for their money.

The importance of developing team-based care was also a recurring theme in MAP deliberations. MAP members suggested that the healthcare system needs to do better at identifying patients who are in need of care, defining what good care looks like for them, and leveraging both team-based approaches and the overall resources of the health system to provide that care.[96]

MAP Hospital Workgroup (2015-2016)

In consideration of its identification of gaps, MAP noted that the measurement gaps identified by CMS in the *Program Specific Measure Priorities and Needs* published in May 2015 as high-priority areas for future hospital measure development do not address all the high-priority domains identified by MAP.[97] Gap areas identified by MAP include obstetrics, pediatrics, and measures addressing the cost of drugs, particularly specialty drugs.

MAP also discussed the need for an all-harm or global-harm eCQM that would provide the public with more useful information about overall hospital care. This type of measure would provide hospitals with more readily accessible data on their performance as compared to waiting for data from claims-based measures.

Additionally, for the Hospital Acquired Condition Reduction Program, MAP agreed with the measure gaps identified by CMS and emphasized a few additional gap areas. These include measures of what hospitals are doing to prevent adverse drug events, pressure ulcers, falls with harm, and acute renal failure in the hospital. A few members of MAP stressed the importance of a general surgical site infection measure instead of procedure-specific measures.

MAP agreed with the CMS-identified measure gaps in the set of measures applicable to the Hospital Outpatient Quality Reporting (OQR) Program, placing particular emphasis on patient and family engagement and communication and care coordination among multiple providers. MAP also cited the importance of measures of high-volume outpatient services, including screening and primary care visits. MAP noted the importance of recognizing patients and families as care partners to drive shared decision making and support for patients as they navigate multiple providers. MAP encouraged new measure development to assess the success of coordinated care partnerships including the family, patient, and clinician. It cited the Patient Activation Measure (PAM), developed at the University of Oregon, as a good example of care partnerships assessment. NQF endorsed the PAM in December 2015 after consideration by the Person- and Family-Centered Care Committee during its off-cycle review process.

MAP concurred with the priority measure gap areas identified by CMS related to the Ambulatory Surgical Care Quality Reporting (ASCQR) Program. The Workgroup stressed its support for adding

measures of surgical quality, including both site infections and complications, and measures of patient and family engagement.

One additional gap area that MAP suggested for the Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting Program was a quality-of-life measure for patients with cancer, which could help improve the care provided. The measures reviewed this cycle would help to fill the care coordination and quality-of-life measurement gap, but still more measures in this area are needed to fill this gap completely. MAP also recognized that many cancer patients are treated in general hospitals, and not in cancer-specialty hospitals. For this reason, MAP encouraged better symmetry between this program and the IQR Program to help improve the overall quality of care for cancer patients regardless of setting.

MAP found gaps in the current set of measures used in the Inpatient Psychiatric Facility Quality Reporting Program. MAP stressed the need for better measures addressing substance abuse, in particular, abuse of alcohol, tobacco, and opioids. MAP also recognized the need for measures assessing connections to care in the community, especially measures that assess if a patient is connected to a primary care provider.

For the End-Stage Renal Disease Quality Improvement Program (ESRD QIP), MAP identified several gap areas including fluid management, infection, vascular access, patient-centered care, and medical therapy management. MAP also discussed reviewing the list of quality measures used in the ESRD Seamless Care Organizations (ESCO)[98] to determine if measures from that program should be considered for ESRD QIP. The ESCO measures focus on patient safety, person- and caregiver-centered experience and outcomes, communication and care coordination, clinical quality care, and population health.[99]

MAP PAC/LTC Workgroup (2015-2016)

During this cycle of pre-rulemaking, MAP stressed the importance of hospitals and PAC/LTC settings working together to reduce avoidable admissions and readmissions. Specifically, MAP recognized that measures related to discharge to community require further development to ensure that each individual measure is defined appropriately in the correct context of setting of care and that it achieves the intended result.

MAP reiterated the importance of successful care transitions and noted the need for engagement by all providers in the care planning process. MAP noted that partnerships between hospitals and PAC/LTC providers are critical to successful patient transitions between settings of care, and that measures that accurately assess the quality and seamlessness of these transitions still need further development.

MAP provided input on measures under development that are intended to close gaps in identified high-priority domains. MAP identified quality of life as a highest-priority domain and identified symptom management, social determinants of health, autonomy and control, and access to non-acute levels of care, as well as those domains submitted to meet the IMPACT Act requirements, as additional important domain areas. Specifically, for the Skilled Nursing Facility Quality Reporting Program (SNF QRP), the measures considered included functional status measures aimed at assessing improvement in mobility

and self-care during the SNF stay, functional status measures that assess discharge scored for mobility and self-care, antipsychotic medication use, pain assessment, and influenza administration.

CMS previously identified three high-priority domains for future measure consideration for the Hospice Quality Reporting Program—namely, the need for outcome measures for hospices across domains of care, patient and family engagement addressing the needs of individuals and their families to assess the level of quality provided, and making care safer through timeliness and responsiveness of care. In order to address these measurement gaps, measures under development included a measure focused on hospice visits when death is imminent. MAP stressed that an important aspect in assessing quality in hospice care is determining if visits and care provided are meaningful to both the patient and the caregiver.[100]

MAP Workgroup on Dual Eligible Beneficiaries

The Dual Eligible Beneficiaries Workgroup identified the following high-priority measurement gap areas for dual eligible beneficiaries:

- Goal-directed, person-centered care planning and implementation;
- Shared decision making;
- Systems to coordinate acute care, long-term services and supports, and nonmedical community resources;
- Beneficiary sense of control/autonomy/self-determination;
- Psychosocial needs;
- Community integration/inclusion and participation; and
- Optimal functioning assessment.

The Workgroup emphasized the importance of the high-priority measure gaps for dual eligible beneficiaries. While progress in measure development continues in some areas, the Workgroup encouraged further innovation to close gap areas. Specifically, the Workgroup urged stakeholders and experts across disciplines to collaborate, share, and build upon innovative efforts of states, regions, and other countries that have measures in use that may apply to the populations covered by the dual eligible program.

In addition to these areas, Workgroup members emphasized gaps in measures for home and community-based services as well as measures of affordable and cost-effective care.[101]

MAP Medicaid Adult Core Set Task Force

The Task Force identified gap areas from a variety of sources, including stakeholder feedback, review of state reporting practices, and data on prevalent conditions affecting the adult Medicaid population. Although the Adult Core Set includes some measures pertaining to these topics, the Task Force regards this measure set as the groundwork on which future measures will be built to strengthen the quality of care for adult Medicaid recipients.

Several of the gaps identified during this review were also identified during MAP's 2015 deliberations. This list of measure gaps below will be a starting point for future discussions and will guide MAP's input on strengthening the Adult Medicaid Core Set:

- Access to primary, specialty, and behavioral healthcare;
- Behavioral health and integration with primary care;
- Beneficiary-reported outcomes surrounding health-related quality of life;
- Care coordination, primarily integration of medical and psychosocial services and primary care with behavioral care;
- Cultural competency of providers;
- Efficiency, especially in relation to inappropriate emergency department use;
- Long-term supports and social services;
- Maternal and reproductive health, particularly interconception care to address risk factors, poor birth outcomes, postpartum complications, and support with breastfeeding after hospitalizations;
- Promotion of wellness;
- Treatment outcomes for behavioral conditions and substance use disorders, namely, psychiatric re-hospitalization, follow-up, and clinical improvement;
- Workforce;
- New chronic opioid use (45 days);
- Polypharmacy;
- Engagement and activation in healthcare; and
- Trauma-informed care.

Public commenters supported MAP's assessment of high-priority gap areas for the Medicaid adult population. Notably, one commenter suggested consideration of outcome measures that could be used in value-based purchasing programs, urging MAP to consider measures that assess prevention efforts and social determinants of health.[102]

MAP Medicaid/CHIP Child Core Set Task Force

Many important priorities for pediatric quality measurement and improvement do not yet have fully developed metrics available to address them. The Task Force discussed the gaps in current measures to communicate its vision for the future of measurement to the developer community. Additionally, the list of measure gaps will be a starting point for future discussions and will guide annual revisions to further strengthen the Child Core Set.

The Core Set includes measures related to some of the gap topics below, but the Task Force recognized that this list is not exhaustive and that measure developers should continue efforts to expand and update the set. MAP first identified gap areas during its 2014 review and further addressed the gap areas during this 2016 review. Newly identified gap areas are marked with an asterisk (*). The gaps enumerated by MAP are as follows:

- Care Coordination – home and community-based services, social services coordination, cross-sector measures that would foster joint accountability with the education and criminal justice systems, care integration to assess efficacy and outcomes for integrated behavioral health in primary care medical homes as well as collaborative care between primary and subspecialty providers for patients with chronic conditions*, adolescent preparation for transition to adult-focused healthcare*, care coordination for conditions requiring community linkages*;
- Screening for abuse and neglect;
- Injuries and trauma*;
- Mental health – access to outpatient and ambulatory mental health services, emergency department use for behavioral health, behavioral health functional outcomes that stem from trauma-informed care;
- Exposure to adverse childhood experiences (ACEs)*;
- Overuse/medically unnecessary care;
- Durable medical equipment;
- Cost measures targeting people with chronic conditions and families' out-of-pocket spending;
- Dental care access for children with disabilities (which could involve stratifying a current measure); and
- Duration of children's health coverage over a 12-month period.

Public comments supported the Task Force's assessment of high-priority measure gaps for the Medicaid and CHIP enrollees. Commenters also suggested several measure gap additions, including access to inpatient psychiatric care, access to specialty mental healthcare, measures assessing care within school systems, value-based performance measures, and care coordination measures.[103]

II. Gaps in Evidence and Targeted Research Needs

Under section 1890(b)(5)(A)(v) of the Act, the entity is required to describe areas in which evidence is insufficient to support endorsement of quality and efficiency measures in priority areas identified by the Secretary under the National Quality Strategy and where targeted research may address such gaps.

Under the direction of HHS, NQF conducted work to advance the science of quality measurement to address these areas in need of further development in order to advance the priorities set forth in the National Quality Strategy. The six NQS priorities are to make care safer by reducing harm caused in the delivery of care, to ensure that each person and family are engaged as partners in their care, to promote effective communication and coordination of care, to promote the most effective prevention and treatment practices for leading causes of mortality, to work with communities to promote wide use of best practices to enable healthy living, and to make quality care more affordable for individuals, families, employers, and governments.

Even as quality measurement advances, gaps in evidence and research persist in the areas of electronic health records (EHRs) and other health information technology (IT) systems, health IT patient safety, telehealth, and the comparability of eCQMs.

EHRs and other health IT systems hold out great promise to make healthcare higher quality, safer, more affordable, and better coordinated. Yet barriers to achieving this goal exist, including lack of health IT interoperability, questions about the efficacy of health IT-enabled healthcare such as telehealth, safety issues related to health IT, and comparability issues with eCQMs, among other challenges. NQF's health IT initiatives address these and other issues to advance healthcare empowered by health IT that improves health and healthcare for the nation.

Prioritization and Identification of Health IT Patient Safety Measures

Health IT has the potential to advance patient safety in various ways, including improvements in medication reconciliation, medication adherence, care coordination and risk identification. Health IT can also be used to help facilitate evidence-based best practices through well-designed clinical decision support, and can enable safer and more patient-centered care by providing clinicians with access to important data so that each decision is made with full knowledge of prior care and patient preferences.

However, detecting and preventing Health IT-related safety events poses many challenges because these are often multifaceted events, which involve not only potentially unsafe technological features of electronic health records, for example, but also user behaviors, organizational characteristics, and rules and regulations that guide most technology-focused activities. Through the Health IT and Patient Safety project, NQF addressed the rapidly evolving area of Health IT and its intersection with quality and outcomes, with the goal of developing a set of recommendations around the measurement of Health IT-related safety issues.

The multistakeholder Health IT Safety Committee, convened in 2015, advanced a conceptual framework for analyzing measures of safety in Health IT and related priority measurement areas in its final[104] report, *Identification and Prioritization of Patient Safety Measures,* published in February 2016.

The Committee adopted a three-domain framework for conceptualizing the potential measurement concepts and gaps in the area of health IT safety to guide future measurement development. The following framework raises the three domains needed to identify and prioritize these measures:

1. Addresses safe health IT, meaning that health IT is designed and implemented in a manner that enhances patient safety and actively addresses known and potential safety issues that are inherent to health IT software or hardware. Subdomains include data availability, data integration, and data security.
2. Focus on the safe use of health IT, which includes issues related to the implementation, configuration, use, and governance of health IT systems. The domain comprises the subdomains of health IT usability, organizational planning, preparation, and governance for health IT, complete and correct use of health IT, and surveillance and monitoring of health IT safety concerns.
3. Focus on the ways in which health IT can be used to improve the safety of patient care and to facilitate meaningful and effective patient engagement.

In addition to the framework, the Committee identified nine key measurement areas for health IT safety, each of which includes several measure concepts that could potentially reflect performance in

that area; possible data sources or data collection strategies; and the entities that could potentially be held accountable for performance in each area. Key measurement areas are:

1. Clinical decision support;
2. System interoperability;
3. Patient identification;
4. User-centered design and use of testing, evaluation, and simulation to promote safety across the health IT lifecycle;
5. System downtime (data availability);
6. Feedback and information sharing;
7. Use of health IT to facilitate timely and high-quality documentation;
8. Patient engagement; and
9. Health IT-focused risk-management infrastructure.

During the course of its deliberations, the Committee discussed overarching issues that affect health IT patient safety. First, the Committee noted that health IT quality and safety should be a shared responsibility of clinicians, healthcare organizations, vendors, and in some instances, patients, requiring attention and solutions across the full health IT lifecycle. The Committee also recognized that increased data entry burden for clinicians and other staff needs to be considered as one of the most important, unintended consequences of health IT; the constantly evolving technology may pose both a challenge and an opportunity for health IT measure development. Finally, the Committee recognized that health IT safety can be promoted through a variety of mechanisms, including performance measurement and reporting as well as through regulations and accreditation programs.

Common Formats for Patient Safety

In 2008, the Agency for Healthcare Research and Quality (AHRQ) first released Common Formats to support structured reporting of safety events in hospitals. These reporting techniques standardize the collection of patient safety event information using common language, definitions, and reporting formats. Use of common data fields for event reporting ensures that information shared with Patient Safety Organizations (PSOs) is consistent across healthcare providers and can be aggregated to provide population-level insights into trends in adverse events.

The public has an opportunity to comment on all elements of the Common Formats modules using commenting tools developed and maintained by NQF. An NQF Expert Panel reviews the public comments and provides AHRQ recommendations with the goal of evolving the Common Formats modules.

The NQF Expert Panel is currently reviewing comments received on Hospital Common Formats Version 2.0. Discussion of final recommendations will continue through the end of 2016 with final recommendations expected in early 2017.

Interoperability

Interoperability is the capacity of systems and devices to exchange and share data in a timely and seamless manner. Ready exchange of data between different systems facilitates care integration and

coordination and helps individuals and organizations make informed decisions about healthcare to improve patient outcomes. The lack of interoperable medical records has increasingly presented significant challenges for healthcare. Currently, there is no common measurement framework to help assess progress in achieving interoperability. NQF is undertaking foundational work to help the quality community assess progress toward efficient and secure communication between providers' computer-based systems and applications.

The project, commenced in October 2016, will develop a common framework and measure concepts that measure the extent of seamless exchange of data between different health IT systems. Through this project, NQF conducts a multistakeholder review of current issues and barriers around interoperability, and identifies a set of proposed measures and measure concepts to assess interoperability across settings of care. In 2016, this project convened an Expert Panel and conducted its orientation webinar. A final report is expected in September 2017.

Telehealth

Over the past 15 years, telehealth has grown significantly across a variety of healthcare settings. More than half of all U.S. hospitals have a telehealth program, with over 800,000 online consultations occurring in 2015 alone.

Telehealth is the use of electronic communications, information technology, or other means between a provider in one location and a patient in another location. It typically involves the application of technology to provide or support healthcare delivery by replicating the interaction of a traditional, in-person encounter between a provider and a patient. As a result, it is expected to produce the same clinical outcomes, independent of the method of care. While there are many clinical measures to evaluate the effectiveness of healthcare interventions, less is known about the extent to which these measures can be used to assess the effectiveness and overall quality of telehealth interventions. Particularly in rural areas, long distances between patients and providers can hinder access to care and can impose burdensome costs upon patients and their families to seek medical care.

Commenced in September 2016, this project aims to examine how best to apply clinical measures to telehealth healthcare encounters and develop a framework for measuring the quality. NQF also will develop a framework for measuring nonclinical aspects of telehealth, such as access to care and cost effectiveness. A final report from the Committee is expected in September 2017. Work accomplished to date includes orienting the Committee, progress on producing an environmental scan, and beginning steps to identify key measurement framework attributes.

Disparities

Disparities occur when individuals experience differing levels of healthcare and health outcomes based on social risk factors. Studies have linked disparities in healthcare to inadequate resources, poor patient-provider communication, and a lack of culturally competent care. The healthcare system must address these factors in order to mitigate health and healthcare disparities and promote equal treatment for all patients.

The AHRQ 2015 National Healthcare Quality and Disparities Report showed that people in low-income households received more substandard care than people in high-income households for about 60 percent of reported quality measures included in the AHRQ report.[105] In addition, African Americans, Hispanics, Native Americans, and Alaska Natives received more substandard care than whites for about 40 percent of reported quality measures.[106] Yet overall, the AHRQ report shows that performance measures assessing quality are improving for all populations.

NQF is currently conducting a self-funded trial period to evaluate the impact that adjustment for socioeconomic status (SES) has on outcomes. Previous NQF policy prohibited the consideration of SES and other demographic factors in risk-adjusting performance measures out of concern that doing so might conceal disparities in care—resulting in lower standards of provider performance. The NQF Board of Directors decided to temporarily change NQF's policy in 2015 and evaluate its impact during the course of a two-year trial period. Findings of the trial will be given to the Board in 2017 upon its conclusion, at which time a permanent decision on the NQF policy surrounding SES and other demographic risk adjustment is expected.

To build on prior NQF efforts focused on disparities, this project funded by CMS undertakes new work to explore disparities in cardiovascular disease, cancer, diabetes, chronic kidney disease, mental illness, infant mortality, and low birth weight. These five conditions are highly prevalent causes of morbidity and mortality in the United States, as well as some of the costliest conditions to treat.

The Committee convened for this project will explore the social risk factors (e.g., socioeconomic position, disability, and social relationships) that contribute to these disparities. Committee members will conduct an environmental scan to identify performance measures to assess the effectiveness of interventions to reduce disparities.

Specifically, this project will involve:

- A review of the evidence describing disparities in health and healthcare outcomes in the target conditions;
- A review of the causes and factors associated with disparities in the target conditions, evidence of effective interventions, and gaps in existing work;
- An environmental scan of performance measures currently in use or under development to assess effective interventions;
- The identification of gaps in measurement and the extent to which stakeholders are employing effective interactions;
- The development of a conceptual framework; and
- Recommendations for measure development to assess efforts to reduce disparities in health and healthcare in the target conditions.

A final report is expected in September 2017.

Emergency Department Quality of Transitions of Care

Currently, there are no measures that address the quality of transitions of care into and out of an emergency department (ED). ED visits often represent a critical juncture for a patient, and management of these transitions is important to improve person-centered care, value, and cost efficiency.

Without measures, these transitions lack an established, step-by-step protocol to ensure information sharing and a smooth transition of care for both the patient and provider. Lack of information sharing between the ED and providers may lead to anxiety, uncertainty, inappropriate resource use, or a worsening in the patient's condition and potential harm. The lack of optimal communication during transitions from one care setting to another may contribute to confusion among clinicians regarding the patient's condition, duplicative tests, inconsistent patient monitoring, medication errors, delays in diagnoses, and lack of follow-through on referrals.

Commenced in September 2016, this project identifies concepts for transitions-of-care quality measures for conditions across healthcare settings. NQF will conduct an environmental scan of existing and potential measure concepts relating to emergency department transitions. In addition, NQF will convene an Expert Panel to review the scan, identify measure gaps, and develop a measurement framework and set of guiding principles for future measurement opportunities. NQF will produce a final report summarizing this work in September 2017.

Improving Diagnostic Accuracy

Diagnostic errors are the failure to establish or communicate an accurate and timely assessment of the patient's health problem. Diagnostic errors persist across all healthcare settings and can result in physical, psychological, or financial repercussions for the patient. While most people will experience at least one diagnostic error in their lifetime, the challenge lies in recognizing and defining diagnostic errors. This challenge has left a gap in quality improvement and measurement.

Following the release of the report *Improving Diagnosis in Healthcare,* The National Academy of Sciences, Engineering, and Medicine (NAM) concluded that a sole focus on reducing diagnostic error will not alone achieve widespread change and improvement.[107] NAM called for a broader emphasis on improving the diagnostic process. To accomplish this, NAM put forth eight goals calling for improving and reducing diagnostic error.

For this project, which began in September 2016, NQF will engage stakeholders from across the healthcare spectrum to explore the complex intersection of issues related to diagnostic errors. Specifically, this project will address the following three of the eight goals promulgated by NAM:

- Facilitate more effective teamwork in the diagnostic process among healthcare professionals, patients, and patients' families;
- Develop and deploy approaches to identify, learn from, and reduce diagnostic errors and near misses in clinical practice; and
- Establish a work system and culture that supports the diagnostic process and improvements in diagnostic performance.

To date, NQF has convened a Committee to develop a conceptual framework building upon the evidence, concepts, and models contained in the *Improving Diagnosis in Healthcare* report. The Committee will identify measures currently in development, in testing, and in use. It will then make recommendations for the development of priority measures to address measurement gaps in diagnostic quality and safety. At the close of 2016, the Committee began the environmental scan for measure identification. A final report is expected in September 2017.

VII. Coordination with Measurement Initiatives by Other Payers

Section1890(b)(5)(A)(i) of the Social Security Act mandates that the Annual Report to Congress and the Secretary include a description of the implementation of quality and efficiency measurement initiatives under this Act and the coordination of such initiatives with quality and efficiency initiatives implemented by other payers.

Core Quality Measures Collaborative – Private and Public Alignment

Beginning in 2014, AHIP brought together private- and public-sector payers to identify a core set of aligned measures that both sectors would agree to request from physicians and other providers going forward.[108] NQF provided technical assistance to the Collaborative. Representatives from national physician organizations, employers, and consumer groups also participated in this effort. The Core Quality Measures Collaborative initially focused largely on clinician-level measures used in the ambulatory care settings.

The alignment of measure sets across payers will aid in:

- Promotion of measurement that is evidence-based and can generate valuable information for quality improvement;
- Consumer decision making;
- Value-based purchasing;
- Reduction in the variability in measure selection; and
- Decreasing providers' collection burden and costs.

The Collaborative's stakeholders formed working groups charged with the mission to foster measure alignment in key clinical areas and settings. The working groups addressed the specific areas of accountable care organizations and patient-centered medical homes, cardiology, obstetrics and gynecology, oncology, orthopedics, gastroenterology, ophthalmology, and HIV and hepatitis C. Nearly all of the measures that the Collaborative identified for alignment purposes are NQF-endorsed. NQF educated the workgroups on the current status of the NQF portfolio and the individual measures under consideration for the core set.

The Collaborative published its core measure sets in February 2016.[109]

Quality Measurement for the Medicaid Innovation Accelerator Program

The CMS Medicaid Innovation Accelerator Program (IAP) was launched in 2014 to support states' ongoing efforts related to payment and delivery reforms through targeted technical assistance. The

Medicaid IAP provides targeted technical assistance to state Medicaid agencies across four main program areas:

1. Reducing substance use disorders;
2. Improving care for Medicaid beneficiaries with complex care needs and high costs;
3. Promoting community integration for beneficiaries using long-term services and supports; and
4. Integration of physical and mental health.

In addition, the IAP works with states around key delivery system reform efforts in four functional areas: quality measurement, performance improvement, data analytics, and payment modeling and financial simulations.[110]

NQF's Medicaid Innovation Accelerator Project began in 2016 to support the IAP's four program areas. It will identify and recommend Medicaid-relevant measure sets to support the four main program areas mentioned above.

NQF convened a multistakeholder Coordinating Committee and expert panels to identify sets of existing, standardized measures for state Medicaid agency use. The measures identified will span care settings, levels of analysis, and Medicaid populations for areas important to Medicaid delivery system reform. A final report is expected in September 2017 and will summarize recommendations for the measure sets in the IAP priority areas.

VIII. Conclusion

NQF's work to improve health and healthcare has significantly evolved since it endorsed its first performance measure more than a decade ago. In 2016, NQF drew upon its deep measurement science knowledge and ability to build consensus across public- and private-sector stakeholders to add high-value measures to its portfolio, to retire measures of lesser value, and to advise HHS on the best measures to use in public-reporting and value-based payment programs.

NQF's focus on improving quality of care, enhancing safety, and reducing costs through the endorsement and selection of valid and reliable quality measures remains a constant. Simultaneously, committees and expert panels convened by NQF focus on laying the ground work for new areas of measurement, including assessing the efficacy of care administered through telehealth and the identification of measure gaps in home and community-based services.

In 2016, NQF and its multistakeholder committees endorsed an increased number of outcome measures—both clinical and patient-reported. The composition of NQF's portfolio is now 40 percent outcome measures. NQF also identified critical measure gaps in costly, prevalent health areas—such as neurologic and pulmonary conditions as well as palliative and end-of-life care. Having meaningful and effective performance measures is increasingly consequential because of their centrality to care delivery and payment reform efforts that have bipartisan support and are embraced by the public and private sectors.

NQF also expanded its work in measurement science in 2016. Projects this year, such as variation of measure specifications and value set harmonization, focused on resolving challenges that stand in the way of developing and implementing high-value outcome and cost measures. The recommendations of the Attribution Committee, for example, will help facilitate more accurate attribution of performance to a provider within a team-based environment, a cornerstone to the current reforms in value-based purchasing programs.

In 2016, NQF continued to work in areas that will help facilitate the transition to eMeasurement. Efforts in this area included the increased submission and review of eCQMs, creating a framework to advance the use of measures to improve the safety of health information technology, facilitating the development of evaluation criteria, an overall approach to the harmonization and approval of value sets, and identifying a set of proposed measure concepts that will improve interoperability of EHRs across settings of care.

In 2017, NQF looks forward to continuing work that drives increased use of high-value quality measurement across settings of care, improves the usability and implementation of eCQMs, and furthers a portfolio of effective and impactful measures that public and private payers, providers, and patients can rely upon to improve health and healthcare value.

References

[1] Throughout this report, the relevant statutory language appears in italicized text.

[2] Contract with a Consensus-Based Entity Regarding Performance Measurement. 42 U.S. C. 1395aaa(b)(1) (2014).

[3] HHS. *Report to Congress: National Strategy for Quality Improvement in Health Care*. Washington, DC: HHS; 2011. Available at http://www.ahrq.gov/workingforquality/nqs/nqs2011annlrpt.pdf. Last accessed October 2016.

[4] HHS. *Report to Congress: National Strategy for Quality Improvement in Health Care*. Washington, DC: HHS; 2011. Available at http://www.ahrq.gov/workingforquality/nqs/nqs2011annlrpt.pdf. Last Accessed October 2016.

[5] Commission on Long-Term Care. *Report to the Congress*. Washington, DC: Government Printing Office (GPO); 2013. Available at http://www.gpo.gov/fdsys/pkg/GPO-LTCCOMMISSION/pdf/GPO-LTCCOMMISSION.pdf. Last accessed October 2016.

[6] National Quality Forum (NQF). *Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement*. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/09/Quality_in_Home_and_Community-Based_Services_to_Support_Community_Living__Addressing_Gaps_in_Performance_Measurement.aspx. Last accessed February 2017.

[7] NQF. *Addressing Performance Measure Gaps in Home and Community-Based Services to Support Community Living: Initial Components of the Conceptual Framework*. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=79920. Last accessed February 2017.

[8] NQF. *Addressing Performance Measure Gaps in Home and Community-Based Services to Support Community Living: Synthesis of Evidence and Environmental Scan*. Washington, DC; 2016. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=81346. Last accessed February 2017.

[9] NQF. *Addressing Performance Measure Gaps in Home and Community-Based Services to Support Community Living: Priorities for Measure Development.* Washington, DC: 2016. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=82630. Last accessed February 2017.

[10] NQF. *Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement.* Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/09/Quality_in_Home_and_Community-Based_Services_to_Support_Community_Living__Addressing_Gaps_in_Performance_Measurement.aspx. Last accessed February 2017.

[11] Contract with a Consensus-Based Entity Regarding Performance Measurement. 42 U.S. C. 1395aaa(b)(2)(3) (2014).

[12] Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Pub. L 114-10 §1833(z)(3)(C). 42 U.S.C. 1395 (2010).

[13] NQF. *Attribution – Principles and Approach.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Attribution_-_Principles_and_Approaches.aspx. Last accessed February 2017

[14] Harmonization is the process of editing the design of similar measures to ensure they are compatible. Measure developers can make changes to the way a topic or population is defined. Harmonization helps reduce the confusion of having measures that are similar but different.

[15] NQF. *Variation in Measures Specifications: Sources and Mitigation Strategies.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Variation_in_Measure_Specifications_-_Sources_and_Mitigation_Strategies_Final_Report.aspx. Last accessed February 2017.

[16] NQF. *Value Set Harmonization.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/03/Value_Set_Harmonization_-_Final_Report.aspx. Last accessed February 2017.

[17] Office of the National Coordinator (ONC) for Health Information Technology. *Quality Data Model, Version 4.1.2.* Washington, DC: Centers for Medicare & Medicaid Services (CMS); 2015. Available at https://ecqi.healthit.gov/system/files/qdm/qdm_4_1_2.pdf. Last accessed February 2017.

[18] National Institutes of Health, Value Set Authority Center. CMS eCQM value sets for eReporting for the 2017 reporting period, publication date: January 06, 2017 website. https://vsac.nlm.nih.gov/. Last accessed February 2017.

[19] NQF. *Value Set Harmonization.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/03/Value_Set_Harmonization_-_Final_Report.aspx. Last accessed February 2017.

[20] NQF standing committees are comparable to the expert advisory committees typically convened by federal agencies.

[21] NQF. *Measure Evaluation Criteria and Guidance for Evaluating Measures for Endorsement.* Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=83123. Last accessed February 2017.

[22] Centers for Disease Control (CDC). *Improving the Nation's Vision Health: A Coordinated Public Health Approach.* Atlanta, GA; 2007. Available at http://www.cdc.gov/visionhealth/publications/vhi_report.htm. Last accessed February 2017.

[23] Wittenborn J, Rein D. *Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States*. Chicago, IL: NORC at the University of Chicago; 2013. Available at http://www.preventblindness.org/sites/default/files/national/documents/Economic%20Burden%20of%20Vision%20Final%20Report_130611.pdf. Last accessed December 2016.

[24] CDC. National Ambulatory Medical Care Survey Factsheet for Otolaryngology, Atlanta, GA: CDC: 2010. Available at http://www.cdc.gov/nchs/data/ahcd/NAMCS_2010_factsheet_otolaryngology.pdf. Last accessed February 2017.

[25] NQF. *Eye Care and Ear, Nose, and Throat Conditions, 2014-2016*. Final Technical Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/EENT_Final_Report.aspx. Last accessed February 2017.

[26] NQF. *Neurological Conditions 2015-2016*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/11/Neurological_Conditions_2015-2016.aspx. Last accessed February 2017.

[27] CDC. Stroke website. http://www.cdc.gov/stroke/facts.htm. Last accessed October 2016.

[28] CDC. Alzheimer's disease website. http://www.cdc.gov/aging/aginginfo/alzheimers.htm. Last accessed October 2016.

[29] CDC. Epilepsy fact sheet. http://www.cdc.gov/epilepsy/basics/fast-facts.htm. Last Accessed October 2016.

[30] NQF. *Neurological Conditions 2015-2016*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/11/Neurological_Conditions_2015-2016.aspx. Last accessed February 2017.

[31] NQF. *Palliative and End-of-Lift Care 2015-2016*. Technical Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Palliative_and_End-of-Life_Care_2015-2016.aspx. Last accessed February 2016.

[32] Children's Health Insurance Program Reauthorization Act of 2009. Pub. L 111-3. 42 U.S.C. §1320b-9a (2009).

[33] NQF. *Pediatric Measures*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/06/Pediatric_Measures_Final_Report.aspx. Last accessed February 2017.

[34] Johnson K, Posner SF, Biemann J, et al. Recommendations to improve preconception health and health care – United States. A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR Recomm Rep*. 2006;55(RR-6):1-23.

[35] Dehlendorf C, Rodriguez MI, Levy K, et al. Disparities in family planning. *Am J Obstet Gynecol*. 2010;202(3):214-220.

[36] CDC. Pregnancy mortality surveillance system website. http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.html. Last accessed October 2016.

[37] NQF. *Perinatal and Reproductive Health 2015-2016*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Perinatal_and_Reproductive_Health_2015-2016_Final_Report.aspx. Last accessed February 2017.

[38] National Heart, Lung and Blood Institute (NHLBI), NIH. Disease Statistics. In: *NHLBI Fact Book, Fiscal Year 2012*. Bethesda, MD: NHLBI; 2012:chap 4. Available at http://www.nhlbi.nih.gov/about/documents/factbook/2012/chapter4. Last accessed October 2016.

[39] American Lung Association. *Estimated Prevalence and Incidence of Lung Disease*. Washington, DC: American Lung Association Epidemiology and Statistics Unit; 2014. Available at http://www.lung.org/finding-cures/our-research/trend-reports/estimated-prevalence.pdf. Last accessed February 2017.

[40] Society of Critical Care Medicine. Critical care statistics website. http://www.sccm.org/Communications/Pages/CriticalCareStats.aspx. Last Accessed February 2017.

[41] Society of Critical Care Medicine. Critical care statistics website. http://www.sccm.org/Communications/Pages/CriticalCareStats.aspx. Last Accessed February 2017.

[42] Inactive endorsement with reserve status (a.k.a. reserve status) is applied only to highly credible, reliable and valid measures that have high levels of performance with little variability so that performance could be monitored as necessary to ensure that performance does not decline.

[43] NQF. *Pulmonary and Critical Care*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/10/Pulmonary_and_Critical_Care_2015-2016_Final_Report.aspx. Last accessed February 2017.

[44]Hines A, Barrett M, Jiang HJ, et al. *Conditions with the Largest Number of Adult Hospital Readmissions by Payer, 2011*. Rockville, MD: Agency for Healthcare Research and Quality (AHRQ); 2014. HCUP Statistical Brief #172. Available at http://www.hcup-us.ahrq.gov/reports/statbriefs/sb172-Conditions-Readmissions-Payer.pdf. Last Accessed February 2017.

[45] American Cancer Society (ACS). *Cancer Facts and Figures 2016*. Atlanta: ACS; 2016. Available at http://www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2016/index. Last Accessed February 2017.

[46] ACS. *Cancer Facts and Figures 2015*. Atlanta: ACS; 2016. Available at https://old.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf. Last accessed February 2017.

[47] National Cancer Institute. Cancer Prevalence and Cost of Care projections website. https://costprojections.cancer.gov/. Last accessed February 2017.

[48] Soni A. *Trends in Use and Expenditures for Cancer Treatment among Adults 18 and older, U.S. Civilian Noninstitutionalized Population, 2001 and 2011*. Rockville, MD: Agency for Healthcare Research and Quality (AHRQ); 2014. Statistical Brief #443. Available at http://meps.ahrq.gov/mepsweb/data_files/publications/st443/stat443.pdf. Last accessed February 2016.

[49] Lloyd-Jones D, Adams RJ, Brown TM, et al. Heart disease and stroke statistics —2010 update. A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2010;121:e1-e170.

[50] Lloyd-Jones D, Adams RJ, Brown TM, et al. Heart disease and stroke statistics —2010 update. A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2010;121:e1-e170.

[51] HHS. *HHS Secretary Sebelius Statement on National High Blood Pressure Education Month*. May 2, 2012. Available at http://www.hhs.gov/news/press/2012pres/05/20120502a.html. Last accessed October 2013.

[52] Catlin A, Cowan C, Hartman M, et al. National health spending in 2006: a year of change for prescription drugs. *Health Aff (Millwood)*. 2008; 27(1):14-29.

[53] Nash DB, Reifsnyder J, Fabius R, Pracilio VP. *Population Health: Creating a Culture of Wellness*. Sudbury, MA: Jones & Bartlett Learning; 2011.

[54] Kindig DA, Asada Y, Booske B. A population health framework for setting national and state health goals. *JAMA*, 2008;299(17):2081-2083.

[55] NQF. *Population Health Endorsement Maintenance: Phase II*. Technical Report. Washington, DC: NQF; 2012. Available at www.qualityforum.org/Publications/2012/12/Population_Health_Endorsement_Maintenance_Phase_II_Technical_Report.aspx. Last accessed February 2017.

[56] CDC, Association of State and Territorial Health Officials (ASTHO). *Eliminating Healthcare-Associated Infections: State Policy Options*, Arlington, VA: ASTHO, 2011.

[57] AHRQ. *2015 National Healthcare Quality and Disparities Report and 5th Anniversary Update on the National Quality Strategy*. Rockville, MD: AHRQ; 2016.

[58] NQF. *Safe Practices for Better Healthcare – 2010 Update*. Washington, DC: NQF; 2010. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25689. Last accessed February 2017.

[59] NQF. List of SREs website. http://www.qualityforum.org/Topics/SREs/List_of_SREs.aspx. Last accessed February 2017.

[60] U.S. Renal Data System (USRDS). *USRDS 2010 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States*. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases; 2010. Available at http://www.usrds.org/atlas.htm. Last accessed June 2016.

[61] USRDS. U.S. Renal Data System. *USRDS 2010 Annual Data Report: Atlas of Chronic Kidney Disease and End-Stage Renal Disease in the United States*. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases; 2010. Available at http://www.usrds.org/atlas.htm. Last accessed June 2016.

[62] Cullen KA, Hall MJ, Golosinskiy A. Ambulatory surgery in the United States, 2006. *Natl Health Stat Report*. 2009;(11):1-25. Available at http://www.cdc.gov/nchs/data/nhsr/nhsr011.pdf. Last accessed February 2017.

[63] Cullen KA, Hall MJ, Golosinskiy A. Ambulatory surgery in the United States, 2006. *Natl Health Stat Report*. 2009(11):1-125. Available at http://www.cdc.gov/nchs/data/nhsr/nhsr011.pdf. Last accessed February 2017.

[64] CDC, NCCHS. *National Hospital Discharge Survey: 2010 Table, Procedures by Selected Patient Characteristics – Number by Procedure Category and Age*. Atlanta, GA: CDC; 2010. Available at http://www.cdc.gov/nchs/nhds/nhds_tables.htm. Last Accessed February 2017.

[65] Trust for America's Health. Outbreaks: Protecting Americans from Infectious Diseases, 2014. Washington, DC: Trust for America's Health, Robert Wood Johnson Foundation; 2014. Available at http://healthyamericans.org/assets/files/Final%20Outbreaks%202014%20Report.pdf. Last accessed February 2017.

[66] CDC, National Center for Health Statistics. Infectious disease website. http://www.cdc.gov/nchs/fastats/infectious-disease.htm. Last accessed February 2017

[67] Contract with a Consensus-Based Entity Regarding Performance Measurement. 42 U.S. C. 1395aaa(b)(5)(A) (2014).

[68]The Merit-based Incentive Payment System (MIPS), established by H.R. 2 Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), consolidates the programs of the Physician Quality Reporting System (PQRS), the Value-Based Modifier (VM), and the Electronic Health Records (EHR) Incentive program into one program (MIPS). MIPS will apply to doctors of medicine or osteopathy, doctors of dental surgery or dental medicine, doctors of podiatric medicine, doctors of optometry, chiropractors, physician assistants, nurse practitioners, clinical nurse specialists, and certified registered nurse anesthetists. Positive and negative adjustments will be applied to items and services beginning January 1, 2019, based on providers meeting a performance threshold in four performance categories: quality, resource use, clinical practice improvements activities, and meaningful use of certified EHR technology.

[69] ACA §3022 requires CMS to establish a Shared Savings Program that promotes accountability for a patient population, coordinates items and services under Medicare Parts A and B, and encourages investment in infrastructure and redesigned care process for higher-quality and more efficient service delivery. Eligible providers, hospitals, and suppliers may participate in the MSSP by creating or participating in an Accountable Care Organization (ACO). If ACOs meet program requirements and the ACO quality performance standard, they are eligible to share in savings, if earned.

[70] Accountable Care Organizations (ACOs) are groups of doctors, hospitals, and other healthcare providers, who come together voluntarily to give coordinated care to their patients.

[71] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Clinicians.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/03/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs__Clinicians.aspx. Last accessed February 2017.

[72] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Hospitals.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs_-_Hospitals.aspx. Last accessed February 2017.

[73] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Post-Acute Care and Long-Term Care.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs_-_PAC-LTC.aspx. Last accessed February 2017.

[74] CMS. *Medicare-Medicaid Coordination Office Fiscal Year 2015 Report to Congress.* Baltimore, MD: CMS; 2015. Available at https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/Downloads/MMCO_2015_RTC.pdf. Last accessed October 2016.

[75] CMS. *Physical and Mental Health Condition Prevalence and Comorbidity among Fee-for-Service Medicare-Medicaid Enrollees.* Baltimore, MD: CMS; 2014.

[76] Medicare Payment Advisory Commission (MedPAC). *Data Book. Beneficiaries Dually Eligible for Medicare and Medicaid. Section 4: Dual-eligible beneficiaries' utilization of and spending on Medicare and Medicaid services.* Washington, DC: MedPAC; 2015:45-49. Available at http://medpac.gov/docs/default-source/data-book/january-2015-medpac-and-macpac-data-book-beneficiaries-dually-eligible-for-medicare-and-medicaid.pdf?sfvrsn=0. Last accessed October 2016.

[77] Medicare Payment Advisory Commission (MedPAC) and the Medicaid and CHIP Payment and Access Commission (MACPAC). *Data Book: Beneficiaries Dually Eligible for Medicare and Medicaid.* Washington, DC: MedPAC, MACPAC; 2015. Available at http://www.medpac.gov/documents/data-book/january-2015-med-pac-and-macpac-data-book-beneficiaries-dually-eligible-for-medicare-and-medicaid.pdf. Last accessed October 2016.

[78] Medicare Payment Advisory Commission (MedPAC) and the Medicaid and CHIP Payment and Access Commission (MACPAC). *Data Book: Beneficiaries Dually Eligible for Medicare and Medicaid.* Washington, DC: MedPAC, MACPAC; 2015. Available at http://www.medpac.gov/documents/data-book/january-2015-med-pac-and-macpac-data-book-beneficiaries-dually-eligible-for-medicare-and-medicaid.pdf. Last accessed October 2016.

[79] NQF. *Promoting Community Connections through Quality Measurement for the Dual Eligible Beneficiary Population, 2016.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Promoting_Community_Connections_through_Quality_Measurement_for_the_Dual_Eligible_Beneficiary_Population,_2016.aspx. Last accessed February 2017.

[80] HHS. *2014 CMS Statistics.* Baltimore, MD: Centers for Medicare & Medicaid Services (CMS); 2013. Available at https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/Downloads/CMS_Stats_2014_final.pdf. Last accessed October 2016.

[81] HHS. *2014 CMS Statistics.* Baltimore, MD: CMS; 2013. Table I.16. Available at https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/Downloads/CMS_Stats_2014_final.pdf. The blind/disabled total includes some children. Last Accessed October 2016.

[82] Kaiser Family Foundation (KFF). *Low-Income Adults Under Age 65-Many are Poor, Sick, and Uninsured* [policy brief]. Washington, DC: KFF; 2009.

[83] Government Accountability Office (GAO). *Medicaid Preventive Services: Concerted Efforts Needed to Ensure Beneficiaries Receive Services.* Washington, DC: GAO; 2009.

[84] Damler R. Medicaid expansion under the Affordable Care Act. *Health Watch*. 2013;73(October):31-34

[85] NQF. *Strengthening the Core Set of Healthcare Quality Measures for Adults Enrolled in Medicaid, 2016*. Washington, DC; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Strengthening_the_Core_Set_of_Healthcare_Quality_Measures_for_Children_Enrolled_in_Medicaid,_2016.aspx. Last accessed February 2017.

[86] HHS. *2015 Annual Report on the Quality of Care for Adults in Medicaid*. Washington, DC: HHS; 2015.

[87] Markus AR, Andres E, West KD, et al. Medicaid covered births, 2008 through 2010, in the context of the implementation of health reform. *Womens Health Issues*. 2013; 23(5): e273-e280.

[88] NQF. *Strengthening the Core Set of Healthcare Quality Measures for Children Enrolled in Medicaid, 2016*. Washington, DC; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Strengthening_the_Core_Set_of_Healthcare_Quality_Measures_for_Children_Enrolled_in_Medicaid,_2016.aspx. Last accessed February 2017.

[89] NQF. *Eye Care and Ear, Nose, and Throat Conditions, 2014-2016*. Final Technical Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/EENT_Final_Report.aspx. Last accessed February 2017.

[90] NQF. *Neurological Conditions 2015-2016*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/11/Neurological_Conditions_2015-2016.aspx. Last accessed February 2017.

[91] NQF. *Palliative and End-of-Lift Care 2015-2016*. Technical Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Palliative_and_End-of-Life_Care_2015-2016.aspx. Last accessed February 2016.

[92] NQF. *Pediatric Measures*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/06/Pediatric_Measures_Final_Report.aspx. Last accessed February 2017.

[93] NQF. *Perinatal and Reproductive Health 2015-2016*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/12/Perinatal_and_Reproductive_Health_2015-2016_Final_Report.aspx. Last accessed February 2017.

[94] NQF. *Pulmonary and Critical Care*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/10/Pulmonary_and_Critical_Care_2015-2016_Final_Report.aspx. Last accessed February 2017.

[95] CMS. Center for Clinical Standards and Quality. *2015 Measures under Consideration List. Program Specific Measure Priorities and Needs*. Baltimore, MD: CMS; 2015:25-26. Available at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Downloads/Program-Specific-Measure-Priorities-and-Needs.pdf. Last accessed February 2017.

[96] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Clinicians*. Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/03/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs__Clinicians.aspx. Last accessed February 2017.

[97] CMS. Center for Clinical Standards and Quality. *2015 Measures under Consideration List. Program Specific Measure Priorities and Needs*. Baltimore, MD: CMS; 2015:25-26. Available at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Downloads/Program-Specific-Measure-Priorities-and-Needs.pdf. Last accessed February 2017.

[98] The Comprehensive ESRD Care (CEC) model joins together dialysis clinics, nephrologists, and other providers to create ESRD Seamless Care Organizations (ESCOs) to coordinate care for matched beneficiaries. ESCOs are accountable for clinical quality outcomes and financial outcomes measures by Medicare Part A and B spending. Center for Medicare and Medicaid Innovation. Pub. L 114-38. 42 U.S.C. 1315a(a)(1) (2010).

[99] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Hospitals.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs_-_Hospitals.aspx. Last accessed February 2017.

[100] NQF. *MAP 2016 Considerations for Implementing Measures in Federal Programs: Post-Acute Care and Long-Term Care.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/MAP_2016_Considerations_for_Implementing_Measures_in_Federal_Programs_-_PAC-LTC.aspx. Last accessed February 2017.

[101] NQF. *Promoting Community Connections through Quality Measurement for the Dual Eligible Beneficiary Population, 2016.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Promoting_Community_Connections_through_Quality_Measurement_for_the_Dual_Eligible_Beneficiary_Population,_2016.aspx. Last accessed February 2017.

[102] NQF. *Strengthening the Core Set of Healthcare Quality Measures for Adults Enrolled in Medicaid, 2016.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Strengthening_the_Core_Set_of_Healthcare_Quality_Measures_for_Adults_Enrolled_in_Medicaid,_2016.aspx. Last accessed February 2017.

[103] NQF. *Strengthening the Core Se rot Healthcare Quality Measures for Children Enrolled in Medicaid, 2016.* Final Report. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/08/Strengthening_the_Core_Set_of_Healthcare_Quality_Measures_for_Children_Enrolled_in_Medicaid,_2016.aspx. Last accessed February 2017.

[104] NQF. Identification and Prioritization of HIT Patient Safety Measures. Washington, DC: NQF; 2016. Available at http://www.qualityforum.org/Publications/2016/02/Identification_and_Prioritization_of_HIT_Patient_Safety_Measures.aspx. Last accessed February 2017.

[105]Agency for Healthcare Research and Quality (AHRQ). *2015 National Healthcare Quality and Disparities Report.* Rockville, MD: AHRQ; 2015. Available at https://www.ahrq.gov/research/findings/nhqrdr/nhqdr15/index.html. Last accessed February 2017.

[106] AHRQ. *2015 National Healthcare Quality and Disparities Report.* Rockville, MD: AHRQ; 2015. Available at https://www.ahrq.gov/research/findings/nhqrdr/nhqdr15/index.html. Last accessed February 2017.

[107] National Academies of Sciences, Engineering, and Medicine. *Improving Diagnosis in Health Care.* Washington, DC: The National Academies Press; 2015. Available at http://iom.nationalacademies.org/Reports/2015/Improving-Diagnosis-in-Healthcare. Last accessed February 2017.

[108] Conway PH. Core Quality Measures Collaborative Working Group. The Core Quality Measures Collaborative: A rationale and framework for public-private quality measure alignment. *Health Affairs Blog.* June 23, 2015. http://healthaffairs.org/blog/2015/06/23/the-core-quality-measures-collaborative-a-rationale-and-framework-for-public-private-quality-measure-alignment/. Last accessed February 2017.

[109] CMS. Core measures: overview website. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/core-measures.html. Last Accessed February 2017.

[110] CMS. Medicaid Innovation Accelerator Program (IAP) website. https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/innovation-accelerator-program.html. Last accessed February 2017.

Appendix A: 2016 Activities Performed Under Contract with HHS

1. Recommendations on the National Quality Strategy and Priorities

Description	Output	Status	Notes/Scheduled or Actual Completion Date
Multistakeholder input on a National Priority: Improving Population Health by Working with Communities	Publication of *Improving Population Health by Working with Communities: Action Guide 3.0*	Completed	Final report issued August 2016.
Quality measurement for home and community-based services	Publication of *Quality in Home and Community-Based Services to Support Community Living: Addressing Gaps in Performance Measurement*	Completed	Final report issued September 2016.

2. Quality and Efficiency Measurement Initiatives

Description	Output	Status	Notes/Scheduled or Actual Completion Date
Eye Care, Ear, Nose, and Throat Conditions	Set of endorsed measures for eye care, ear, nose and throat conditions	Completed	Endorsed 21 measures, including 6 eCQMs in February 2016.
Neurology	Set of endorsed measures for neurology measures	Completed	Endorsed 9 measures, including 1 eCQM in November 2016.
Palliative and End-of-Life Care	Set of endorsed measures for palliative and end-of-life measures	Completed	Endorsed 23 measures in December 2016.
Pediatric	Set of endorsed measures for pediatric measures	Completed	Endorsed 15 measures in June 2016.
Perinatal and Reproductive Health	Set of endorsed measures for perinatal and reproductive health	Completed	Endorsed 18 measures in December 2016.
Pulmonary and Critical Care	Set of endorsed measures for pulmonary and critical care	Completed	Endorsed 12 measures in October 2016.
All-cause admissions and readmissions measures	Set of endorsed measures for all-cause admissions and readmissions	Phase 2 completed Phase 3 in progress	Phase 2 endorsed 30 measures in December 2016. Phase 3 final report expected October 2017.
Cancer	Set of endorsed measures for cancer	In Progress	Final report expected January 2017.
Cardiovascular	Set of endorsed measures for cardiovascular conditions	Phase 3 completed May 2016 Phase 4 in progress	Phase 3 endorsed 17 measures in May 2016. Phase 4 final report expected February 2017.
Cost and Resource Use	Set of endorsed measures for cost and resource use	Phase 4 in progress	Phase 4 final report expected September 2017.
Health and Well Being	Set of endorsed measure for health and well being	Phase 3 in progress	Phase 3 final report expected January 2017.
Patient Safety	Set of endorsed measures for patient safety	Phase 2 completed Phase 3 in progress	Phase 2 endorsed 22 measures in February 2016. Phase 3 final report expected March 2017.
Person and Family Centered Care	Set of endorsed measures for person and family centered care	In progress	Final report expected January 2017.
Renal	Set of endorsed measures for renal conditions	In progress	Final report expected February 2017.
Surgery	Set of endorsed measures for surgical care	Phase 3 in progress	Phase 3 final report expected March 2017.

Description	Output	Status	Notes/Scheduled or Actual Completion Date
Behavioral Health	Set of endorsed measures for behavioral health	In progress	Final report expected September 2017.
Care Coordination	Set of endorsed measures for care coordination	In progress	Final report expected September 2017.
Infectious Disease	Set of endorsed measures for infectious disease	In progress	Final report expected September 2017
Variation of measure specifications	Environmental scan, conceptual framework, glossary of definitions, and recommendation of core principles	Completed	Final report published December 2016.
Attribution	Set principles for attribution and explore valid and reliable approaches for attribution, develop model that meets the requirements set	In progress	Final report expected December 2016.
Value set harmonization	Development of evaluation criteria, recommendations on integration	Completed	Final report published March 2016.

3. Stakeholder Recommendations on Quality and Efficiency Measures and National Priorities

Description	Output	Status	Notes/Scheduled or Actual Completion Date
Recommendations for measures to be implemented through the federal rulemaking process for public reporting and payment	Measure Applications Partnership pre-rulemaking recommendations on measures under consideration by HHS for 2016 rulemaking	Completed	Completed February 2016
Identification of quality measures for dual-eligible Medicare-Medicaid enrollees and adults enrolled in Medicaid	Annual input on the Initial Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid, and additional refinements to previously published Families of Measures.	Completed	Completed August 2016
Identification of quality measures for children in Medicaid	Annual input on the Initial Core Set of Health Care Quality Measures for Children enrolled in Medicaid.	Completed	Completed August 2016

Appendix B: Attribution Model Selection Guide

What is the context and goal of the accountability program?	• **What are the desired outcomes and results of the program?** • **Is the attribution model evidence-based?** • **Is the attribution model aspirational?** • **What is the accountability mechanism of the program?** • **Which entities will participate and act under the accountability program?** • **What are the potential consequences?**
How do the measures relate to the context in which they are being used?	• What are the patient inclusion/exclusion criteria? • Does the model attribute enough individuals to draw fair conclusions?
Which units will be affected by the attribution model?	• Which units are eligible for the attribution model? • To what degree can the accountable unit influence the outcomes? • Do the units have sufficient sample size to aggregate measure results? • Are there multiple units to which this attribution model will be applied?
How is the attribution performed?	• What data are used? Do all parties have access to the data? • What are the qualifying events for attribution, and do those qualifying events accurately assign care to the right accountable unit? • What are the details of the algorithm used to assign responsibility? • Have multiple methodologies been considered for reliability? • What is the timing of the attribution computation?

Appendix C: MAP Measure Selection Criteria

The Measure Selection Criteria (MSC) are intended to assist MAP with identifying characteristics that are associated with ideal measure sets used for public reporting and payment programs. The MSC are not absolute rules; rather, they are meant to provide general guidance on measure selection decisions and to complement program-specific statutory and regulatory requirements. Central focus should be on the selection of high-quality measures that optimally address the National Quality Strategy's three aims, fill critical measurement gaps, and increase alignment. Although competing priorities often need to be weighed against one another, the MSC can be used as a reference when evaluating the relative strengths and weaknesses of a program measure set, and how the addition of an individual measure would contribute to the set. The MSC have evolved over time to reflect the input of a wide variety of stakeholders.

To determine whether a measure should be considered for a specified program, the MAP evaluates the measures under consideration against the MSC. MAP members are expected to familiarize themselves with the criteria and use them to indicate their support for a measure under consideration.

1. NQF-endorsed measures are required for program measure sets, unless no relevant endorsed measures are available to achieve a critical program objective

Demonstrated by a program measure set that contains measures that meet the NQF endorsement criteria, including importance to measure and report, scientific acceptability of measure properties, feasibility, usability and use, and harmonization of competing and related measures

Subcriterion 1.1	*Measures that are not NQF-endorsed should be submitted for endorsement if selected to meet a specific program need*
Subcriterion 1.2	*Measures that have had endorsement removed or have been submitted for endorsement and were not endorsed should be removed from programs*
Subcriterion 1.3	*Measures that are in reserve status (i.e., topped out) should be considered for removal from programs*

2. Program measure set adequately addresses each of the National Quality Strategy's three aims

Demonstrated by a program measure set that addresses each of the National Quality Strategy (NQS) aims and corresponding priorities. The NQS provides a common framework for focusing efforts of diverse stakeholders on:

Subcriterion 2.1	*Better care, demonstrated by patient- and family-centeredness, care coordination, safety, and effective treatment*
Subcriterion 2.2	*Healthy people/healthy communities, demonstrated by prevention and well-being*
Subcriterion 2.3	*Affordable care*

3. Program measure set is responsive to specific program goals and requirements

Demonstrated by a program measure set that is "fit for purpose" for the particular program

Subcriterion 3.1	*Program measure set includes measures that are applicable to and appropriately tested for the program's intended care setting(s), level(s) of analysis, and population(s)*
Subcriterion 3.2	*Measure sets for public reporting programs should be meaningful for consumers and purchasers*
Subcriterion 3.3	*Measure sets for payment incentive programs should contain measures for which there is broad experience demonstrating usability and usefulness (Note: For some Medicare payment programs, statute requires that measures must first be implemented in a public reporting program for a designated period)*
Subcriterion 3.4	*Avoid selection of measures that are likely to create significant adverse consequences when used in a specific program*
Subcriterion 3.5	*Emphasize inclusion of endorsed measures that have eCQM specifications available*

4. Program measure set includes an appropriate mix of measure types

Demonstrated by a program measure set that includes an appropriate mix of process, outcome, experience of care, cost/resource use/appropriateness, composite, and structural measures necessary for the specific program

Subcriterion 4.1	*In general, preference should be given to measure types that address specific program needs*
Subcriterion 4.2	*Public reporting program measure sets should emphasize outcomes that matter to patients, including patient- and caregiver-reported outcomes*
Subcriterion 4.3	*Payment program measure sets should include outcome measures linked to cost measures to capture value*

5. Program measure set enables measurement of person- and family-centered care and services

Demonstrated by a program measure set that addresses access, choice, self-determination, and community integration

Subcriterion 5.1	*Measure set addresses patient/family/caregiver experience, including aspects of communication and care coordination*
Subcriterion 5.2	*Measure set addresses shared decisionmaking, such as for care and service planning and establishing advance directives*
Subcriterion 5.3	*Measure set enables assessment of the person's care and services across providers, settings, and time*

6. Program measure set includes considerations for healthcare disparities and cultural competency

Demonstrated by a program measure set that promotes equitable access and treatment by considering healthcare disparities. Factors include addressing race, ethnicity, socioeconomic status, language, gender, sexual orientation, age, or geographical considerations (e.g., urban vs. rural). Program measure set also can address populations at risk for healthcare disparities (e.g., people with behavioral/mental illness).

Subcriterion 6.1	*Program measure set includes measures that directly assess healthcare disparities (e.g., interpreter services)*
Subcriterion 6.2	*Program measure set includes measures that are sensitive to disparities measurement (e.g., beta blocker treatment after a heart attack), and that facilitate stratification of results to better understand differences among vulnerable populations*

7. Program measure set promotes parsimony and alignment

Demonstrated by a program measure set that supports efficient use of resources for data collection and reporting, and supports alignment across programs. The program measure set should balance the degree of effort associated with measurement and its opportunity to improve quality.

Subcriterion 7.1	*Program measure set demonstrates efficiency (i.e., minimum number of measures and the least burdensome measures that achieve program goals)*
Subcriterion 7.2	*Program measure set places strong emphasis on measures that can be used across multiple programs or applications (e.g., Physician Quality Reporting System [PQRS], Meaningful Use for Eligible Professionals, Physician Compare)*

Appendix D: Federal Public Reporting and Performance-Based Payment Programs Considered by MAP

1. Ambulatory Surgical Center Quality Reporting
2. End-Stage Renal Disease Quality Improvement Program
3. Home Health Quality Reporting
4. Hospice Quality Reporting
5. Hospital Acquired Condition Payment Reduction (ACA 3008)
6. Hospital Inpatient Quality Reporting
7. Hospital Outpatient Quality Reporting
8. Hospital Readmission Reduction Program
9. Hospital Value-Based Purchasing
10. Inpatient Psychiatric Facility Quality Reporting
11. Inpatient Rehabilitation Facility Quality Reporting
12. Long-Term Care Hospital Quality Reporting
13. Medicaid
14. Children's Health Insurance Program (CHIP)
15. Medicare Shared Savings Program
16. Merit-Based Incentive Payment System
17. Physician Compare
18. Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting
19. Skilled Nursing Facility Quality Reporting Program

Appendix E: MAP Structure, Members, Criteria for Service, and Rosters

MAP operates through a two-tiered structure. Guided by the priorities and goals of HHS's National Quality Strategy, the MAP Coordinating Committee provides direction and direct input to HHS. MAP's workgroups advise the Coordinating Committee on measures needed for specific care settings, care providers, and patient populations. Time-limited task forces consider more focused topics, such as developing "families of measures"—related measures that cross settings and populations—and provide further information to the MAP Coordinating Committee and workgroups. Each multistakeholder group includes individuals with content expertise and organizations particularly affected by the work.

MAP's members are selected based on NQF Board-adopted selection criteria, through an annual nominations process and an open public commenting period. Balance among stakeholder groups is paramount. Due to the complexity of MAP's tasks, individual subject matter experts are included in the groups. Federal government *ex officio* members are nonvoting because federal officials cannot advise themselves. MAP members serve staggered three-year terms.

MAP Coordinating Committee

COMMITTEE CO-CHAIRS (VOTING)

Charles Kahn, III, MPH

Elizabeth A. McGlynn, PhD, MPP

ORGANIZATIONAL MEMBERS (VOTING)

Academy of Managed Care Pharmacy
Marissa Schlaifer, RPh, MS

AdvaMed
Steven Brotman, MD, JD

AFL-CIO
Shaun O'Brien

America's Health Insurance Plans
Aparna Higgins, MA

American Board of Medical Specialties
R. Barrett Noone, MD, FACS

American Academy of Family Physicians
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American College of Physicians
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American College of Surgeons
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American HealthCare Association
David Gifford, MD, MPH

American Hospital Association
Rhonda Anderson, RN, DNSc, FAAN

American Medical Association
Carl A. Sirio, MD

American Medical Group Association
Sam Lin, MD, PhD, MBA

American Nurses Association
Marla J. Weston, PhD, RN

Blue Cross and Blue Shield Association
Carol Flamm, MD, MPH

Consumers Union
John Bott, MSSW, MBA

Healthcare Financial Management Association
Richard Gundling, FHFMA, CMA

Maine Health Management Coalition
Brandon Hotham, MPH

The Joint Commission
David Baker, MD, MPH, FACP

The Leapfrog Group
Leah Binder, MA, MGA

National Alliance for Caregiving
Gail Hunt

National Association of Medicaid Directors
Foster Gesten, MD, FACP

National Business Group on Health
Steve Wojcik, MA

National Committee for Quality Assurance
Mary Barton, MD

National Partnership for Women and Families
Carol Sakala, PhD, MSPH

Network for Regional Healthcare Improvement
Chris Queram, MS

Pacific Business Group on Health
William E. Kramer, MBA

Pharmaceutical Research and Manufacturers of America (PhRMA)
Jennifer Bryant, MBA

Providence Health and Services
Ari Robicsek, MD

INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

Richard Antonelli, MD, MS

Doris Lotz, MD, MPH

Elizabeth McGlynn, PhD, MPP

FEDERAL GOVERNMENT LIAISONS (NONVOTING)

Agency for Healthcare Research and Quality (AHRQ)
Nancy J. Wilson, MD. MPH

Centers for Disease Control and Prevention (CDC)
Chesley Richards, MD, MH, FACP

Centers for Medicare & Medicaid Services (CMS)
Patrick Conway, MD, MSc

Office of the National Coordinator for Health Information Technology (ONC)
Kevin Larsen, MD, FACP

MAP Clinician Workgroup

COMMITTEE CHAIR (VOTING)

Bruce Bagley, MD (Chair)

Eric Whitacre, MD, FACS (Vice-Chair)

ORGANIZATIONAL MEMBERS (VOTING)

The Alliance
Amy Moyer

Academy of Ophthalmology
Scott Friedman, MD

American Academy of Pediatrics
Terry Adirim, MD, MPH, FAAP

American Association of Nurse Practitioners
Diane Padden, PhD, CRNP, FAANP

American College of Cardiology
Paul N. Casale, MD, FACC

American College of Radiology
David J. Seindenwurm, MD

Anthem
Stephen Friedhoff, MD

Association of American Medical Colleges
Janis Orlowski, MD

Carolina's HealthCare System
Scott Furney, MD FACP

Consumers' CHECKBOOK
Robert Krughoff, JD

Kaiser Permanente
Kate Koplan

March of Dimes
Cynthia Pelligrini

Minnesota Community Measurement
Beth Averbeck, MD

National Business Coalition on Health
Bruce W. Sherman, MD, FCCP, FACOEM

National Center for Interprofessional Practice and Education
James Pacala, MD, MS

Pacific Business Group on Health
Stephanie Glier, MPH

Patient-Centered Primary Care Collaborative
Marci Nielsen, PhD, MPH

Primary Care Information Project
Winfred Wu, MD, MPH

St. Louis Area Business Health Coalition
Barb Landreth, RN, MBA

INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

Luther T. Clark, MD

Constance Dahlin, MSN, ANP-BC, ACHPN, FPCN, FAAN

FEDERAL GOVERNMENT LIAISONS (NONVOTING)

Centers for Disease Control and Prevention (CDC)
Peter Briss, MD, MPH

Centers for Medicare & Medicaid Services (CMS)
Kate Goodrich, MD

Health Resources and Services Administration (HRSA)
Girma Alemu, MD, MPH

MAP Hospital Workgroup

COMMITTEE CHAIRS (VOTING)

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ORGANIZATIONAL MEMBERS (VOTING)

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Kelly Trautner

American Hospital Association
Nancy Foster

America's Essential Hospitals
David Engler, PhD

ASC Quality Collaboration
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Blue Cross Blue Shield of Massachusetts
Wei Ying, MD, MS, MBA

Children's Hospital Association
Andrea Benin, MD

Geisingter Health Systems
Health Lewis, RN

Mothers Against Medical Error
Helen Haskell, MA

National Coalition for Cancer Survivorship
Shelley Fuld Nasso

National Rural Health Association
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Pharmacy Quality Alliance
Shekhar Mehta, PharmD, MS

Premier, Inc.
Leslie Schultz, PhD, RN, NEA-BC, CPQH

Project Patient Care
Martin Hatlie, JD

Service Employees International Union
LaDawna Howard

The Society of Thoracic Surgeons
Jeff Jacobs, MD

St. Louis Area Business Health Coalition
Karen Roth, TN, MBA, CPA

INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

Gregory Alexander, PhD, RN, FAAN

Elizabeth Evans, DNP

Jack Fowler, Jr., PhD

Mitchell Levy, MD, FCCM, FCCP

Dolores L. Mitchell

R. Sean Morrison, MD

Michael P. Phelan, MD, FACEP

Ann Marie Sullivan, MD

FEDERAL GOVERNMENT LIAISONS (NONVOTING)

Agency for Healthcare Research and Quality (AHRQ)
Pamela Owens, PhD

Centers for Disease Control and Prevention (CDC)
Daniel Pollock, MD

Centers for Medicare & Medicaid Services (CMS)
Pierre Yong, MD, MPH

MAP Post-Acute Care/Long-Term Care Workgroup

COMMITTEE CHAIR (VOTING)

Carol Raphael, MPA

Debra Saliba, MD, MPH

ORGANIZATIONAL MEMBERS (VOTING)

Aetna
Joseph Agostini, MD

American Medical Rehabilitation Providers Association
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Pamela Roberts, PhD, OTR/L, SCFES, CPHQ, FAOTA

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National Transitions of Care Coalition
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AMDA – The Society for Post-Acute and Long-Term Care Medicine
Cari R. Levy, MD, PhD, CMD

Visiting Nurses Association of America
E. Liza Greenberg, RN, MPH

INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

Kim Elliott, PhD, CPHQ

Carol Spence, PhD

Arther Stone, MD

James Lett, II, MD, CMD

Cari R. Levy, MD, PhD, CMD

E. Liza Greenberg, RN, MPH

FEDERAL GOVERNMENT LIAISONS (NONVOTING)

Centers for Medicare & Medicaid Services (CMS)
Alan Levitt, MD

Office of the National Coordinator for Health Information Technology (ONC)
Elizabeth Palena Hall, MIS, MBA, RN

Substance Abuse and Mental Health Services Administration (SAMHSA)
Lisa C. Patton, PhD

MAP Medicaid Adult Task Force

CHAIR (VOTING)

Harold Pincus, MD

ORGANIZATIONAL MEMBERS (VOTING)

Academy of Managed Care Pharmacy
Marissa Schlaifer

American Academy of Nurse Practitioners
Sue Kendig, JD, WHNP-BC, FAANP

American College of Physicians
Michael Sha, MD, FACP

America's Health Insurance Plans
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Humana, Inc.
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March of Dimes
Cynthia Pellegrini

National Association of Medicaid Directors
Kathleen Dunn

National Rural Health Association
Brock Slabach, MPH, FACHE

INDIVIDUAL SUBJECT MATTER EXPERT MEMBERS (VOTING)

Ann Marie Sullivan, MD

Kim Elliott, PhD, CPQH

FEDERAL GOVERNMENT MEMBERS (NONVOTING, EX OFFICIO)

Substance Abuse and Mental Health Services Administration (SAMHSA)
Lisa Patton, PhD

MAP Medicaid Child Task Force

CHAIRS (VOTING)

Foster Gesten, MD

ORGANIZATIONAL MEMBERS (VOTING)

Aetna
Sandra White, MD, MBA

American Academy of Family Physicians
Alvia Siddiqi, MD, FAAFP

American Academy of Pediatrics
Terry Adirim, MD, MPH, FAAP

American Nurses Association
Susan Lacey, RN, PhD, FAAN

American's Essential Hospitals
Denise Cunill, MD, FAAP

Blue Cross and Blue Shield Association
Carole Flamm, MD, MPH

Children's Hospital Association
Andrea Benin, MD

Kaiser Permanente
Jeff Convissar, MD

March of Dimes
Cynthia Pellegrini

National Partnership for Women and Families
Carol Sakala, PhD, MSPH

INDIVIDUAL SUBJECT MATTER EXPERT MEMBERS (VOTING)

Luther Clark, MD

Anne Cohen, MPH

Marc Leib, MD, JD

FEDERAL GOVERNMENT MEMBERS (NONVOTING, EX OFFICIO)

Agency for Healthcare Research and Quality
Denise Dougherty, PhD

Health Resources and Services Administration
Ashley Hirai, PhD

Office of the National Coordinator for Health IT
Kevin Larsen, MD, FACP

MAP Dual Eligible Beneficiaries Workgroup

CO-CHAIRS (VOTING)

Jennie Chin Hansen, RN, MS, FAAN

Nancy Hanrahan, PhD, RN, FAAN

ORGANIZATIONAL MEMBERS (VOTING)

AARP Public Policy Institute
Susan Reinhard, RN, PhD, FAAN

AMDA – The Society for Post-Acute and Long-Term Care Medicine
Gwendolen Buhr, MD, MHS, Med, CMD

American Geriatrics Society
Gregg Warshaw, MD

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National Association of Social Workers
Joan Levy Zlotnik, PhD, ACSW

New Jersey Hospital Association
Aline Holmes, DNP, MSN, RN

INDIVIDUAL SUBJECT MATTER EXPERT MEMBERS (VOTING)

Mady Chalk, MSW, PhD

James Dunford, MD

K. Charlie Lakin, PhD

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Kimberly Rask, MD, PhD

Gail Stuart, PhD, RN

FEDERAL GOVERNMENT MEMBERS (NONVOTING, EX OFFICIO)

Administration for Community Living (ACL)
Eliza Bangit, JD, MA

Centers for Medicare & Medicaid Services (CMS)
Venesa J. Day

Office of the Assistant Secretary for Planning and Evaluation
D.E.B Potter, MS

National Quality Forum
1030 15th St NW, Suite 800
Washington, DC 20005
http://www.qualityforum.org

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