NATIONAL QUALITY FORUM

Report from the National Quality Forum: 2012 NQF Measure Gap Analysis

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Contents

Executive Summary

Over the past ten years, the use of U.S. healthcare performance measurement has exploded in response to the challenges of improving safety and quality, improving patient health and experience, and reducing rapidly escalating healthcare costs that are plaguing governments, employers, and consumers alike. Performance measures are now widely used in payment, public reporting, and quality improvement programs. Yet with approximately 700 measures of quality and cost endorsed by NQF, most would agree that critical gaps in measurement capabilities remain. Others express concerns about measurement overload and administrative burden and are wary of the prospect of too much measurement. We are at a crossroads. We need more measures to address high-priority issues while still ensuring parsimony of measurement that does not overwhelm the professionals who are working to improve health and healthcare.

We are at this point in part because until 2011 there was no national blueprint of priorities or goals around which to develop, endorse, and implement measures for quality improvement. This is no longer the case. In 2011, with significant public input from the National Priorities Partnership (NPP)—a group of more than 50 public- and private-sector organizations—the Secretary of the Department of Health and Human Services (HHS) released the first *National Strategy for Quality Improvement in Health Care*. This National Quality Strategy (NQS) includes six priority areas, each with aspirational goals and specific targets around which to focus public- and private-sector performance measurement and improvement.

The NQS requires a wide array of quality and efficiency measures for implementation in traditional healthcare settings and across home- and community-based services. While some of the NQS priority areas appear to be well supported by NQF-endorsed measures, others are associated with relatively few measures. In addition to considering measure gaps associated with the NQS, the high-impact Medicare and child health conditions provide an important lens through which to view potential measurement opportunities. Expanding the portfolio of NQF-endorsed measures to fill gaps in both of these areas requires assessing and addressing gaps throughout the measure development, endorsement, and use continuum.

The purpose of this report is threefold: to synthesize measure gaps identified by diverse stakeholder groups through previously completed NQF projects; to map NQF's measure portfolio against the NQS priorities and goals as well as the high-impact Medicare and child health conditions; and to identify and gather feedback on the use of NQF-endorsed measures across federal, state, and private-sector efforts. NQF gathered information on measure gaps drawing from its existing projects and structures that provide a forum for multistakeholder input. Those include the Consensus Development Process (CDP), NPP, the Measure Applications Partnership (MAP), NQF's inventory of NQF-endorsed measures, and information on measures in use by the Robert Wood Johnson Foundation's Aligning Forces for Quality Alliances. Feedback also was solicited from a diverse set of stakeholders including measure developers and key end users.

Synthesis of Measure Gaps

The analyses of this report reveal that discussions of measure gaps too often remain at a high conceptual level, and that more specificity—ideally through a multistakeholder prioritization process—is needed. While many measures currently in use in the field may address high-priority gap areas, a full assessment of their applicability and appropriateness was beyond the scope of this project. Existing measures that address identified gaps should be brought forth for NQF endorsement to assess their importance, scientific reliability and validity, usability, and feasibility before any assessment of value or

recommendations for use are made. Following are high-level syntheses of the measure gaps identified, presented through the lens of the triple aim of the NQS.

Better Care

The lion's share of NQF-endorsed measures related to better care is condition-specific. Addressing the gaps described below would encourage direct patient inputs about their care and further focus the healthcare system on the needs and preferences of patients, their families, and caregivers.

Patient-reported outcomes (PROs)—To fully assess the quality and safety of healthcare, the gap analysis emphasized the importance of patient-reported outcomes, i.e., any report of the patient's health status that comes directly from the patient, without interpretation by a clinician or anyone else. Domains for measurement include symptoms and symptom burden, health-related quality of life including functional status, experience with care, and health-related behaviors. Especially important are PRO-based performance measures that can be aggregated accurately and reliably to the level of an accountable healthcare entity, and that span the full continuum of care.

Patient-centered care and shared decision making—Measures are needed to assess whether patient and family treatment preferences are identified; whether their psychosocial, cultural, spiritual, or healthcare literacy needs are addressed; whether they are actively engaged in developing a care plan; and whether their expressed preferences and goals for care are met. Measures of decision quality are critical for assessing whether patients understand evidence-based treatment options and whether they are able to make decisions based on information provided by their healthcare practitioner.

Care coordination and care transitions—Important outcome measures are needed to assess whether patients, families, and caregivers believe that the overall care coordination process—including the quality of communication, care planning, care transitions, and team-based care—satisfactorily prepared them to manage their care and return to the best possible quality of life. The timeliness of access to high-quality palliative care or hospice services, including pain and symptom management, psychosocial support, and advance care planning, also are identified as gap areas in need of further attention. Measure gaps related to effective medication management, patient adherence, and adverse drug events remain important.

Care for vulnerable populations—A critical gap includes the ability to measure whether high-quality care is available to patients most in need, particularly the vulnerable elderly, individuals with multiple chronic conditions and complex care needs, critically ill patients, patients receiving end-of-life care, children with special needs, residents in long-term care settings, homeless people, and people who are dually eligible for Medicare and Medicaid.

Healthy People/Healthy Communities

The health of the American public is mostly attributable to healthy lifestyle behaviors, a healthy environment, and social status. The following gap areas push the field beyond traditional boundaries of the healthcare delivery system and offer the potential for dramatic gains in health for the nation.

Health and well-being—Measures within and outside of the healthcare system are needed to assess health-related quality of life and to optimize the population's well-being. Measures that assess the burden of illness experienced by patients, families, and caregivers, as well as measures of productivity, are important. Community indices that measure key factors or social determinants known to significantly influence health or drive unnecessary utilization of healthcare services are needed to

develop community programs that effectively and appropriately target resources and interventions to improve population health and reduce disparities.

Preventive care—Composite measures of the highest impact age- and sex-appropriate clinical preventive services, particularly for the cardiovascular disease priority area, continue to be important measure gaps to fill. Oral health is highlighted as an important area in need of measures, specifically for the prevention of dental caries. Also important is the coordination of long-term support services and psychosocial, behavioral health, spiritual, and cultural services. An emerging area of focus for measurement is the extent to which care is coordinated beyond the healthcare delivery system—particularly between healthcare, public health, and community support services—and how individual organizations are held collectively accountable.

Childhood measures—Measure gaps for child and adolescent health emphasized the attainment of developmental milestones, the quality of adolescent well-care visits, prevention of accidents and injuries, and prevention of risky behaviors. There also is a heightened need for measures of childhood obesity in addition to body mass index for more effective upstream management, given the risk for developing diabetes, cardiovascular disease, and other chronic conditions.

Accessible and Affordable Care

Affordability is often narrowly construed. The following gaps broaden its definition to consider affordability through a variety of lenses from the broader cost of the healthcare system to out-of-pocket costs for patients and families. Ensuring access to affordable, high-quality care will necessitate the judicious use of limited resources, and a consideration of gaps from individual and societal perspectives.

Access to care—In addition to measures that assess insurance coverage, the analysis revealed that measure gaps indicative of access to needed care are important to address. Important considerations include the ability to obtain preventive care, medications, mental health, oral health, and specialty services in a timely fashion. Measures also are needed to assess disparities in access and affordability, particularly with regard to race, ethnicity, and socioeconomic status, and for vulnerable populations.

Healthcare affordability—Many stakeholders emphasize the need for affordability indices that reflect the burden of healthcare costs on consumers, including direct costs (e.g., out-of-pocket expenses, and personal healthcare expenditures per capita) as well as indirect opportunity costs (e.g., productivity, work and school absenteeism, and the "cost of neglect" of medical and dental care). Efficiency measures are needed to give providers a benchmark on cost and quality as well as to quantify inefficiencies in all care settings to further target quality improvement efforts. Purchasers and consumers continue to emphasize the importance of understanding pricing and improved transparency of cost data through standardized measurement and reporting.

Waste and overuse—Measures that assess the extent to which the healthcare system promotes the provision of medical, surgical, and diagnostic services that offer little if any value—and that may be harmful to patients—are critical to closing gaps in unwarranted variation. Areas frequently cited as important for measurement include appropriate, patient-centered and patient-directed end-of-life care; unnecessary emergency department visits, hospital admissions, and readmissions (particularly for ambulatory-sensitive conditions); inappropriate medication use and polypharmacy; and duplication of or inappropriate services and testing, particularly imaging.

Availability of NQF-endorsed Measures

Although the NQF portfolio increasingly maps across the NQS priorities, approximately 40 percent of NQF-endorsed measures that map to the NQS at the goal level addresses patient safety, including a wide range of measures related to healthcare-associated conditions and hospital readmissions. Less than 10 percent of measures that map at the goal level address person- and family-centered care, with very few measures for the important areas of shared decision making, patient navigation, and patient self-management. Measures to address healthy lifestyle behaviors and community interventions to promote health and well-being and to prevent cardiovascular disease warrant increased attention. Specific measures of cost remain a high-priority gap area, particularly for the healthcare purchaser community.

NQF's portfolio includes more than 400 condition-specific measures, more than 250 of which address the high-impact Medicare conditions. Approximately 50 measures address high-impact child health conditions, while 13 of these conditions do not have any NQF-endorsed measures associated with them. Although the lack of measures for certain conditions may be of concern, over the past several years leaders in the field have encouraged measures that can be used across patient populations. Therefore, further measure development should be considered in the context of cross-cutting measures that may apply to patients regardless of disease process.

NQF Measure Portfolio in Use

The federal government remains the predominant user of NQF-endorsed measures, using approximately half of the NQF portfolio in its various programs. However, a growing number of these measures are in use across public-sector programs (including state and federal programs) as well as private-sector programs. This increasing alignment holds the promise of reducing measurement burden in the field.

Overall, 64 measures in the NQF portfolio that address specific NQS goals are in concurrent use in federal programs and two or more private programs. The majority of these are safety-related measures, with a small number addressing aspects of overuse, patient experience, and preventive screenings. A nearly equal number of measures that address specific NQS goals are not in use in any of the programs analyzed. This represents a missed opportunity, particularly for measures related to function, quality of life, hospice and palliative care, mental health, and preventive services for children. The analysis also revealed that 56 measures in the NQF portfolio that address high-impact conditions are in concurrent use in federal programs as well as private payer programs, the majority of which reflect the high-impact Medicare conditions. However, 47 measures that address high-impact Medicare or child health conditions had no identified use in any of the program types analyzed. Consideration should be given to the potential barriers that prevent these measures from being implemented in the field.

The Path Forward

As we—the public and private stakeholders committed to building a solid foundation for quality improvement—strive to continually advance the use of standardized performance measurement, we must accelerate efforts to fill, rather than just identify, key measurement gaps. This will require that we make better use of the measures already available for key priority areas and that we prioritize to invest wisely in measure development and endorsement activities to fill the most critical gap areas. Finally, we must work collaboratively to rapidly develop, test, endorse, and implement the most valuable and useful measures that will drive performance improvement in order to achieve high-quality, affordable care and a healthy nation.

Purpose and Scope

Over the past ten years, the use of U.S. healthcare performance measurement has exploded. This has happened in response to the challenges of improving safety and quality, improving patient health and experience, and reducing rapidly escalating healthcare costs that are plaguing governments, employers, and consumers alike. Performance measures are now widely used in payment, public reporting, and quality improvement programs. Yet with more than 700 measures of quality and cost endorsed by NQF, most would agree that critical gaps in measurement capabilities remain. Others express concerns about measurement overload and administrative burden and are wary of the prospect of too much measurement. We are at a crossroads. We need more measures to address high-priority issues while ensuring parsimony of measurement that does not overwhelm the professionals who are working to improve health and healthcare.

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Figure 1: National Quality Strategy Aims and Priorities

The Secretary's NQS requires a wide array of quality and efficiency measures for implementation in traditional healthcare settings and across home- and community-based services. While some of the NQS priority areas and high-impact conditions appear to be well supported by NQF-endorsed measures, others are associated with relatively few. Expanding the portfolio of NQF-endorsed measures to fill these gaps requires assessing and addressing gaps at each stage of the measure development, endorsement, and use continuum.

Section 1890(b)(5) of the Social Security Act requires NQF, the consensus-based entity, to describe gaps in endorsed quality and efficiency measures in the Annual Report to Congress and the Secretary of HHS. Building on the 2011 NQF Report on Measure Gaps and Inadequacies[1], this analysis is intended to support measure development to directly address the NQS priority areas and high-impact Medicare and child health conditions. The purpose of the report is threefold: to synthesize measure gaps identified by diverse stakeholder groups through previously completed NQF projects; to map NQF's measure portfolio against the NQS priorities and goals as well as the high-impact conditions; and to identify and gather feedback on the use of NQF-endorsed measures across federal, state, and private-sector efforts. The analysis and report drew from a range of work commissioned under this and previously funded contracts, and was organized along the continuum noted above to guide directional decisions about filling measure gaps.

Methods

Overview

NQF gathered information on measure gaps drawing from its existing projects and structures that provide a forum for multistakeholder input, including the Consensus Development Process (CDP), the National Priorities Partnership (NPP), and the Measure Applications Partnership (MAP). Data were primarily extracted from reports generated by NQF, for example, gaps identified by steering committees reviewing measures under consideration for endorsement, and gaps highlighted in reports submitted to HHS by NPP and MAP to provide input on the NQS and to inform rulemaking, respectively. Other NQF resources used were the Quality Positioning System, NQF's online inventory of NQF-endorsed measures, and the Community Alignment Tool, which provides information on measures in use by the Robert Wood Johnson Foundation's Aligning Forces for Quality (AF4Q) Alliances. Feedback also was solicited from organizations representing a diverse set of stakeholders including measure developers and key end users. A comprehensive environmental scan for gaps beyond NQF-funded work, including non-endorsed measures in the "pipeline," was beyond the scope of this task.

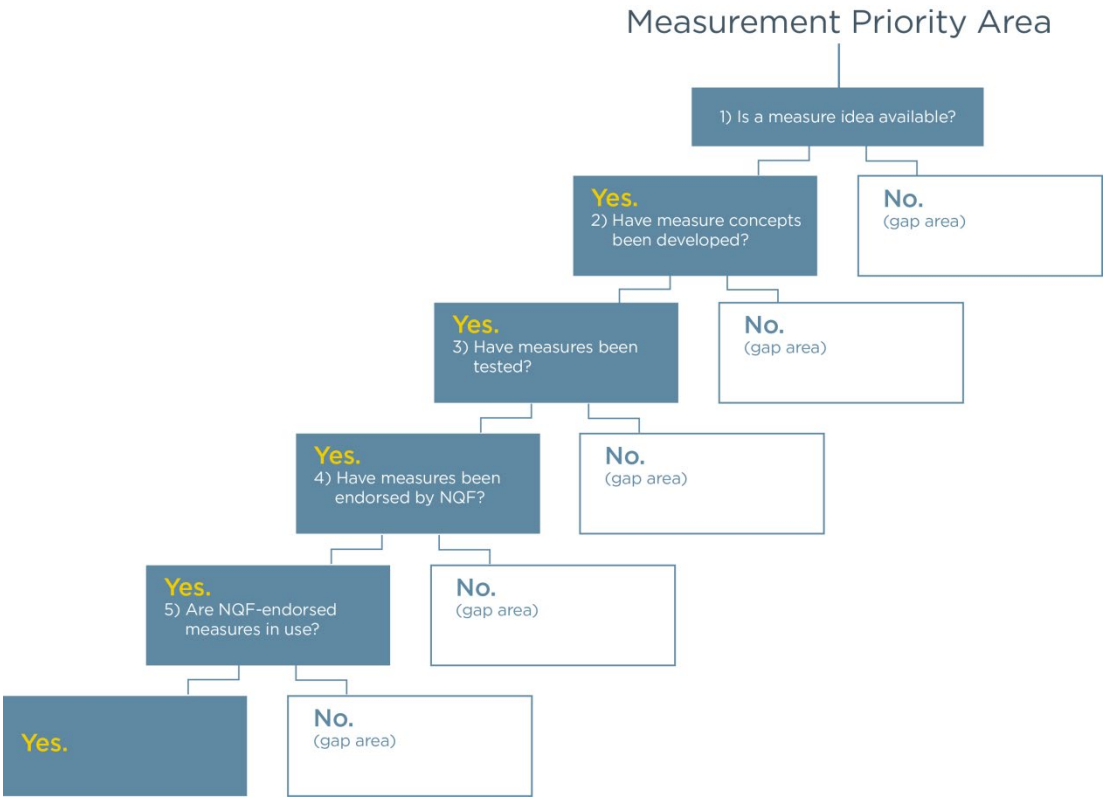
The six NQS priorities served as an overarching framework for data gathering: patient safety; person- and family-centered care; communication and care coordination; prevention and treatment of cardiovascular disease; health and well-being; and access and affordability. The list of NQS priorities and goals is included in Appendix A. NQF also collated data relevant to high-impact Medicare and child health conditions prioritized in a previous project funded by HHS.[2]

[1] NQF: NQF Report on Measure Gaps and Inadequacies; 2012.
[2] NQF: Measure Prioritization Advisory Committee; Measure Development and Endorsement Agenda; 2011.

Approach

Using a cut-off date of November 1, 2012, NQF collected data inputs across the measure life cycle depicted in Figure 2: ideas, concepts, measures tested (not endorsed), endorsed measures, and measures in use. NQF applied this logic as a "roadmap" to guide the identification and analysis of gaps.

Figure 2: Gap Analysis Logic



Gap Analysis: Ideas, Concepts, and Tested Measures (1-2-3)

NQF consulted the reports in Appendix B and collated measure gaps identified in these bodies of work. Gaps were classified as "measure ideas," "measure concepts," or "measure tested," defined as follows:

- *Measure ideas* lack a specified numerator or denominator, and form the basis for measure concept development;
- *Measure concepts* have specified numerators and denominators, and form the basis for measure testing;
- *Measure tested* is a measure that has undergone testing but has not been taken through NQF's Consensus Development Process (CDP), and forms the basis for measure endorsement.

Through this phase of the analysis, 950 gaps were identified. Most gaps (n=708) were broad in nature and met the definition of a measure idea. For example, gaps were identified in the overarching areas of care coordination or patient and family engagement. Measure gaps were not elucidated for some of the conditions, primarily because condition-specific gaps were not within the scope of the projects reviewed. A smaller number of gaps (n=242) was found that could be loosely categorized as measures tested but not endorsed. However, the project team was unable to discern whether these measures

would meet the criteria for NQF endorsement. Gaps in measure concepts were most challenging to identify because gaps often are not well formulated and therefore best fit the definition of a measure idea. Measure concepts warrant further attention as a determinative step along the pathway to clarify whether non-endorsed but tested measures could fill important gaps and, if so, be prioritized for endorsement. Based on these findings, it is recommended that the pathway in Figure 2 be revisited to explore how it can be refined and used most effectively to facilitate gap filling and serve as a framework for gap identification to guide important decision making.

Gap Analysis: Measures endorsed by NQF (4)

The project team mapped each of the 707 endorsed measures in the NQF portfolio (as of November 1, 2012) to at least one NQS priority area and where appropriate to specific NQS goals. The goals established for each NQS priority area guided the mapping exercise and provided the specificity to determine the relevance of measures to the NQS. In addition to identifying gaps in endorsed measures that support the NQS, the team conducted a mapping of the NQF portfolio to the high-impact Medicare and child health conditions.

Gap Analysis: NQF-endorsed measures in use (5)

To identify NQF-endorsed measures currently in use, NQF gathered information on reported or expected measure utilization during 2012 and 2013 in private programs and for 2013 forward for public (federal) programs. Endorsed measures in the NQF portfolio (as of November 1, 2012) were categorized according to the following types of use: federal, state, private payer, community alliances, other uses, and no identified application.

NQF gathered data from various sources. A baseline of federal measure use data was obtained by using the 2012 federal rules for Centers for Medicare & Medicaid Services (CMS) programs on which MAP provided input on the use of measures for implementation and reporting for 2013 and beyond. The project team consulted HHS websites (a complete listing may be found in Appendix B) and included measures in final rules for program implementation defined as being collected and/or reported in 2012 and 2013. State-level use was determined based on information provided by measure developers submitted during NQF endorsement, and data in NQF's 2011 *Report on Measure Gaps and Inaccuracies* was crosschecked to confirm ongoing use in 2012 and 2013. NQF requested information from its Health Plan Council members to gather information on measures in use by private payers, and gathered data on measure use in the 16 Robert Wood Johnson Foundation Aligning Forces for Quality (AF4Q) community alliances using NQF's Community Alignment Tool. For measures that were not identified as in use by any of the above programs, NQF used information provided by developers during the NQF endorsement process and confirmed ongoing use since the 2011 gap analysis. Use of NQF-endorsed measures in accreditation/certification programs, registries, and quality initiatives was categorized under "other use." For any measures that did not have an identified use for the above programs, NQF classified the use as "no identified application."

Outreach to Stakeholders

NQF conducted phone interviews with the organizations listed in Appendix C. No written surveys were completed. The organizations represented a breadth of stakeholder groups including providers, consumers, purchasers, health plans, state Medicaid programs, and community alliances, and offered expertise in topics such as behavioral health, home- and community-based services, disparities, and patient-centeredness. Interviewees were asked to identify the most important measure gaps from their stakeholder perspective, as well as key barriers and accelerants to closing these gaps. Input was solicited on prominent measure gap areas that were elucidated through the gaps analysis such as affordability

(e.g., cost, resource use, and out-of-pocket costs), patient-reported outcomes, and depression. Questions were tailored to the respondents' backgrounds as measure developers or end users. Additionally, an opportunity arose to gather input from measure developers who attended a workshop convened by NQF on November 15, 2012, separate from this project. One of the sessions at the workshop was dedicated to discussing measure gaps and strategies to address them. Organizations representing measure developers attending the workshop also may be found in Appendix C. Key themes that arose from the interviews and workshop session were used to supplement the quantitative gap analysis described earlier.

Analyses

Based on the methodology described above, NQF completed the following analyses:

- Synthesis of measure gaps identified by diverse stakeholders across multiple NQF projects;
- Mapping of the NQF measure portfolio against the NQS priorities and goals;
- Mapping of the NQF measure portfolio against the high-impact Medicare and child health conditions;
- Identification of NQF-endorsed measures in use across federal, state, private payers, community alliances, and other programs; and
- Integration of feedback from a discrete set of stakeholders on measure gaps and use.

Limitations

The work reflected in this report represents a point-in-time analysis and is constrained by a primary focus on sources internal to NQF, although external resources—measure developers and key stakeholder groups—were interviewed to gain additional insight and provide face validity of results. A comprehensive environmental scan was beyond the scope of this project. The analyses do not include an inventory of pipeline measures, nor do they delve into prioritization of gaps beyond the NQS priority areas and high-impact conditions. For example, prioritization of gaps was not done related to specific populations, levels of analyses, settings, or measure types.

Given the scope and resources specified for the project, NQF focused on data from a prescribed set of categories as detailed above for measure use information. Although the team cataloged data on multiple uses per measure for federal, state, private payer, and community alliances, multiple uses per measure were not identified for "other" uses because of the heterogeneity of this category and the time- and resource-intensiveness of the approach.

The resulting work yields substantive information regarding gaps across the NQS priorities and high-impact conditions, and signals how alignment of measures is progressing across public and private programs. Still, as this analysis reveals, gap identification at this point remains very much at the idea level and requires prioritization and further specification for measure development, endorsement, and downstream use.

Analysis of Measures and Measure Gaps: National Quality Strategy Priorities and Goals

A wide range of measures will be needed to assess and improve healthcare quality to achieve the NQS aims of better care, affordable care, and healthy people and communities. This section of the report provides a measure gap analysis for each of the six NQS priorities through the lens of their respective goals. It includes the identification of measure gaps; a summary of NQF-endorsed measures that support specific NQS goals; the use of these measures in public and private programs; and a brief summation of NQF's Measure Applications Partnership's 2013 pre-rulemaking recommendations to HHS. Table 1 provides a summation of the number of NQF-endorsed measures available to address the cross-cutting goals articulated within each priority area of the NQS.

Table 1: Mapping of NQF-endorsed Measures to the National Quality Strategy

NQS Priority Area	Number of NQF-endorsed Measures Mapping to NQS*
Patient Safety	176
Person- and Family-Centered Care	35
Communication and Care Coordination	82
Prevention and Treatment of Cardiovascular Disease	19
Health and Well-being	75
Access and Affordability	66

**Measure counts reflect the number of NQF-endorsed measures that map to the goals articulated within each NQS priority area.*

National Priority—Patient Safety

The National Quality Strategy includes three aspirational goals for *making care safer by reducing harm caused in the delivery of care*:

1. Reduce preventable hospital admissions and readmissions.
2. Reduce the incidence of adverse healthcare-associated conditions.
3. Reduce harm from inappropriate or unnecessary care.

Patient Safety Measure Gaps

Preventable hospital admissions and readmissions—Given the focus on reducing preventable hospital admissions and readmissions in recent years, the field of measurement in this area has expanded considerably. Gaps continue to emphasize the need for measures across all applicable settings and for

all patient populations at high risk for avoidable or preventable hospitalizations. Of great importance is the ability to address social determinants that contribute to unnecessary admissions.

Healthcare-associated conditions—Broadly speaking, measure gaps in this area highlight the importance of composite measures that reflect system-level safety issues at an organizational, community, or population level. The majority of specific measure gaps related to preventing adverse drug events (ADEs) and promoting effective medication management: accuracy of medication lists, drug education regarding high-risk medications, polypharmacy, use of pharmacists and e-prescribing, implementation of drug-drug and drug-allergy interaction checks, use of inappropriate medications or protocols, and injury, emergency care, or mortality related to inappropriate drug management or side effects. Measurement of patient-reported adherence to and understanding of medications also is necessary to the effort to prevent ADEs. Appropriate prescribing and comprehensive medication management are particularly important for dually eligible Medicare and Medicaid beneficiaries. Finally, measures that assess organizational culture and readiness for quality and safety improvement efforts may be useful to address issues from a systems perspective.

NQF-endorsed Patient Safety Measures

Table 2 presents a breakdown of the NQF-endorsed measures that address the above patient safety goals. Beyond these, the portfolio includes an additional 50 patient safety-related measures. Although they do not map directly to these goals, they reflect important aspects of safety, including mortality, morbidity, infrastructure, and workforce.

Table 2: Mapping of NQF-endorsed Measures to the NQS Patient Safety Goals

Patient Safety Goal	Number of NQF-endorsed Measures
Preventable Admissions and Readmissions	23
Healthcare-associated Conditions	117
Harm from Overuse and Inappropriate Care	36

As noted above, a large number of NQF-endorsed safety measures are specific to healthcare-associated conditions. Table 3 illustrates the number of NQF-endorsed measures related to the individual healthcare-associated conditions targeted by the Partnership for Patients initiative.

Table 3: Mapping of NQF-endorsed Healthcare-associated Condition Measures

Healthcare-associated Condition	Number of NQF-endorsed Measures
Adverse drug events and Medication Management	15
Adverse Obstetric Events	10
Catheter-associated Urinary Tract Infection	5
Central Line Blood Stream Infection	6
Falls	9
Pressure Ulcers	8
Surgical Site Infections	21
Ventilator-associated Pneumonia	2
Venous Thromboembolism	15
Other Healthcare-associated Conditions	26

NQF-endorsed Patient Safety Measures in Use

Approximately 35 percent of the safety measures are in use in two or more program types while over half are in use in one program type only. Of the measures in use in one program type, over half are in use in federal programs only. Approximately ten percent of these measures were classified as having no identified use in any of the programs analyzed.

The following safety measures are in use across four different program types:

0138—National Healthcare Safety Network Catheter-associated Urinary Tract Infection Outcome (MAP support: Hospital-acquired Condition Payment Reduction Program; Hospital Value-based Purchasing)
0139—National Healthcare Safety Network Central line-associated Bloodstream Infection Outcome (MAP support: Hospital-acquired Condition Payment Reduction Program)
0300—SCIP INF-4: Cardiac Surgery Patients with Controlled 6 am Postoperative Serum Glucose (MAP support: PPS-exempt Cancer Hospital Quality Reporting)

MAP 2013 Pre-Rulemaking Recommendations on Patient Safety

MAP supported a number of NQF-endorsed measures for PQRS to reduce adverse drug events, including adherence to chronic medications; adherence to chronic medications for diabetes patients; and reconciled medication lists received by discharged patients. MAP also supported the direction of several healthcare-associated condition measures for Long Term Care Hospital Quality Reporting (LTCHQR), including medication reconciliation; fall rate; residents with one or more falls; MRSA; C-Difficile; and VTE prophylaxis. MAP supported CLABSI and CAUTI measures for the HAC Payment Reduction Program and for Hospital Value Based Purchasing (HVBP), respectively. To align with efforts underway to safely reduce avoidable hospitalizations and readmissions, MAP supported several NQF-endorsed readmission measures for use across multiple programs, including Physician Quality Reporting System (PQRS), Hospital Inpatient Quality Reporting (HIQR), and the Hospital Readmission Reduction Program (HRRP).

MAP supported a Clinician/Group CAHPS measure related to patient education on medication adherence for the Value-based Payment Modifier Program, and an outpatient medication monitoring measure for PQRS. MAP supported the direction of CLABSI and CAUTI measures for LTCHQR, a CAUTI measure for Inpatient Rehabilitation Facilities Quality Reporting (IRFQR), and several readmission measures—condition-specific and all-cause—across a number of programs, including PQRS, IRFQR, HRRP, End-stage Renal Disease Quality Incentive Program (ESRD-QIP), Nursing Home Quality Initiative (NHQI), Home Health Quality Reporting (HHQR), and LTCHQR.

National Priority—Person- and Family-centered Care

The National Quality Strategy includes three aspirational goal areas for *ensuring that each person and family member is engaged as a partner in his or her care*:

1. Improve patient, family, and caregiver experience of care related to quality, safety, and access across settings.
2. In partnership with patients, families, and caregivers—and using a shared decision making process—develop culturally sensitive and understandable care plans.
3. Enable patients and their families and caregivers to navigate, coordinate, and manage their care appropriately and effectively.

Person- and Family-centered Care Measure Gaps

Shared decision making—Measures of decision quality are needed to assess patient understanding of evidence-based treatment options—not just the receipt of information—and downstream concordance of the care plan with their expressed preferences, values, and goals. Measures that focus on advance care planning—spanning the duration of illness and relevant across settings—are also necessary. More important is an understanding of the extent to which desired preferences for care are met. Special consideration should be given to measures addressing caregiver, children's, and young adults' decision making capacity. Corresponding measures that assess patient activation and ensure that patients have the knowledge, skills, and support to carry out their care plans also warrant attention.

Person-centered communication—Closely linked to shared decision making, measures are needed to assess the communications skills of health providers to ensure that values and goals—including psychosocial and spiritual needs—of the patient are addressed and integrated into care. This includes measures of health literacy and cultural and linguistic competency to ensure delivery of patient-centered care.

Patient-reported outcomes—Patient-reported outcomes (PROs) include any report of the patient's health status that comes directly from the patient, without interpretation by a clinician or anyone else. Domains include addressing symptoms and symptom burden, health-related quality of life including functional status, experience with care, and health-related behaviors. PRO-based performance measures are needed that can be aggregated accurately and reliably to the level of an accountable healthcare entity. These measures also should span the full continuum of care. Caregiver experience also should be considered, and survey instruments should be tailored to specific populations, including frail elders and individuals with multiple chronic conditions.

NQF-endorsed Person- and Family-centered Care Measures

The number of measures of person- and family-centered care measures in NQF's portfolio has expanded over the past years. Still, Table 4 illustrates that the number of measures that address the second and third NQS goals in this area remains small. Foundational measures to address disparities were recently introduced into the portfolio, including 12 measures focused on culturally competent care for racial and ethnic minority populations. Of note, two additional measures related to person- and family-centered care address infrastructure needs and do not map easily to the specific goals.

Table 4: Mapping of NQF-endorsed Measures to the NQS Person- and Family-centered Care Goals

Person- and Family-Centered Care Goal	Number of NQF-endorsed Measures
Patient and Family Experience	30
Shared Decision Making	5
Patient Navigation and Self-management	0

NQF-endorsed Person- and Family-centered Care Measures in Use

Of these person- and family-centered care measures, approximately 55 percent have an identified use in one program type only. Seven measures are in use in more than one program type, and eight have no identified application, including three CAHPS measures and three measures related to hospice and palliative treatment preferences and care.

The following measures are in use across two or more program types:

0005—CAHPS Clinician/Group Surveys
0006—CAHPS Health Plan Survey v4.0, Adult Questionnaire
0007—NCQA Supplemental Items for CAHPS 4.0 Adult Questionnaire
0009—CAHPS Health Plan Survey v3.0 Children with Chronic Conditions Supplement
0166—HCAHPS Survey (MAP 2013 support direction: PPS-exempt Cancer Hospital Quality Reporting; Long-term Care Hospital Quality Reporting)
0228—3-item Care Transition Measure (CTM-3) (MAP 2013 support: Hospital Value-based Purchasing; MAP 2013 support direction: Long-term Care Hospital Quality Reporting)

1902—Clinician/Group Health Literacy Practices Based on the CAHPS Item Set for Addressing Health Literacy

MAP 2013 Pre-Rulemaking Recommendations on Person- and Family-centered Care

In addition to supporting further application of the above measures in its 2013 pre-rulemaking recommendations to HHS as noted, MAP supported the use of a number of NQF-endorsed measures related to patient experience. These include the CAHPS in-center hemodialysis survey for ESRD-QIP; patient experience with surgical care for PQRS; and the Family Evaluation of Hospice Care for Hospice Quality Reporting. MAP also supported the direction of using HCAPHS for PPS-exempt Cancer Hospital Quality Reporting and LTCHQR. MAP supported the inclusion of an advance care planning measure for LTCHQR as well as a measure of documented care preferences upon admission to the ICU for PQRS. Finally, to further advance patient-centered care for patients with advanced illness, MAP supported a number of measures for PQRS and Hospice Quality Reporting, including hospice and palliative care treatment preferences, pain screening, pain assessment, dyspnea treatment, and dyspnea screening.

National Priority—Communication and Care Coordination

The National Quality Strategy includes three aspirational goal areas for *promoting effective communication and care coordination*:

1. Improve the quality of care transitions and communications across care settings.
2. Improve the quality of life for patients with chronic illness and disability by following a current care plan that anticipates and addresses pain and symptom management, psychosocial needs, and functional status.
3. Establish shared accountability and integration of communities and healthcare systems to improve quality of care and reduce health disparities.

Communication and Care Coordination Measure Gaps

Patient-reported outcomes—Many projects have focused on the need for patient-reported outcomes to assess the broader impact of care coordination, including outcomes related to chronic disease control; functional status and quality of life; disease burden; caregiver burden; medication management; effectiveness of pain and symptom management; and end-of-life care. Additionally, it is important to assess whether patients, families, and caregivers believe that the overall care coordination process—communication, care planning, care transitions, and team-based care—satisfactorily prepared them to manage their care and return to the best possible quality of life.

Care planning and communication—Measure gaps in this area reflect the need to identify essential elements of a shared or longitudinal care plan, to assess the extent to which patients and families are engaged in creating the plan, and to evaluate the extent to which subsequent treatments are concordant with the agreed-upon plan of care. Also important are measures that reflect the operational aspects of the care planning process, specifically the accessibility of the plan to patients and providers; the transmission, receipt, acknowledgement, and monitoring of the plan; and the agreement between patients and providers to carry out the plan. The multidisciplinary nature of care planning, particularly for complex patients, should be explored as a measurement area to assess the extent to which necessary disciplines were included in the process. An essential part of developing and carrying out a care plan is effective communication between the patient and all providers involved in his or her care. More specifically, measures must move beyond "check-the-box" and address both the sending and receiving of timely, complete, and useful information. Specific settings for furthering measure development include the emergency department, where the presence of pharmacists could be helpful

for addressing medication issues. The use of health information technology is a critical aspect of measure development in this area.

Care transitions—Because of the safety challenges inherent in care transitions, this remains an important measurement area. Specific measure gaps include whether patients are scheduled for and receive timely and adequate follow-up care after a transition from one setting to another; whether complete transition records are given to patients and other providers; the effectiveness of communications between providers in all settings, specialties, and disciplines, including acute, ambulatory, nursing home, home care, therapy services, psychiatric providers, substance abuse treatment centers, community pharmacists, and palliative care; and the adequacy of connecting patients to available community resources to better ensure their ability to function at home.

Shared accountability—An emerging and challenging area of measurement focuses on the extent to which care is coordinated within the healthcare delivery system, among healthcare, public health, and community support services, and how individual organizations are held collectively accountable. Specific gaps include the ability to assess the coordination of long-term support services as well as psychosocial, behavioral health, spiritual, and cultural services. Another potential measurement area focuses on providers' experiences with one another and their assessments of the extent to which their peers are delivering high-quality, timely, and effective care to their patients.

Disparities—A critical gap area is ensuring that high-quality care coordination is available to those patient populations that are most in need of such coordination, particularly the vulnerable elderly, individuals with multiple chronic conditions and complex care needs, critically ill patients, patients receiving end-of-life care, children with special needs, residents in long-term care settings, and homeless people. Care coordination for dually eligible Medicare and Medicaid beneficiaries also was raised as an important opportunity for promoting shared accountability and reducing disparities.

NQF-endorsed Communication and Care Coordination Measures

The number of measures in the NQF portfolio that map to the communication and care coordination priority is growing, but Table 5 demonstrates that only 82 measures address the above goals related to communication, care transitions, cross-setting and cross-provider care coordination, or health outcomes for patients with chronic illness or disability. Quality of life and functional status measures pertain primarily to the nursing home setting and to patients with orthopedic conditions.

Table 5: Mapping of NQF-endorsed Measures to NQS Communication and Care Coordination Goals

Communication and Care Coordination Goal	Number of NQF-endorsed Measures
Care Transitions	17
Communications	20
Quality of Life, Functional Status, and Health Outcomes	44
Shared Accountability	1

NQF-endorsed Communication and Care Coordination Measures in Use

Approximately 70 percent of the NQF-endorsed measures mapped to the care coordination goals above are in use in only one program type, half of them in federal programs. Of the 12 measures without an identified use, seven are measures of functional status or quality of life, three address care transitions, and two address hospice and palliative care services.

The following measures mapping to a goal area are in use in three or more program types:

0576—Follow-Up After Hospitalization for Mental Illness (MAP 2013 support: IPHQR)
0648—Timely Transmission of Transition Record (discharges from an inpatient facility to home/self-care or any other site of care) (MAP 2013 support: PQRS; MAP 2013 support direction: Long-term Care Hospital Quality Reporting)
0649—Transition Record with Specified Elements Received by Discharged Patients (MAP 2013 support: PQRS)

MAP 2013 Pre-Rulemaking Recommendations on Communication and Care Coordination

MAP supported several NQF-endorsed measures including the CTM-3 care transitions measure for HVBP and three transition record measures for PQRS. MAP further supported the direction of two transition record measures for LTCHQR as well as measures of medication reconciliation and patient receipt of reconciled medication list following discharge.

Additionally, MAP supported several NQF-endorsed measures for Hospice Quality Reporting and PQRS that are important for patients with chronic conditions or advanced illness, including hospice and palliative care measures to screen, assess, and treat pain and dyspnea. MAP also supported the direction of measures not endorsed by NQF, including three functional outcome measures for IRFQR and LTCHQR, in addition to a measure to query patients about pain interfering with function for PQRS.

National Priority—Prevention and Treatment of Cardiovascular Disease

The National Quality Strategy includes three aspirational goal areas for *promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease*:

1. Promote cardiovascular health through community interventions that result in improvement of social, economic, and environmental factors.
2. Promote cardiovascular health through interventions that result in adoption of the most important healthy lifestyle behaviors across the lifespan.
3. Promote cardiovascular health through receipt of effective clinical preventive services across the lifespan in clinical and community settings.

Prevention and Treatment of Cardiovascular Disease Measure Gaps

Clinical preventive services—Measures to assess cardiometabolic risk factors across all levels of analysis and settings are needed, including ten-year risk for heart attack or coronary death. Also needed are a composite measure of the "ABCs"—appropriate aspirin use, blood pressure/cholesterol control, and smoking cessation—to assess evidence-based prevention and treatment of the disease and broader population-level measures to assess screening and control of blood pressure and cholesterol.

Healthy lifestyle behaviors—Measures for leading behavioral risk factors for cardiovascular disease are needed, including tobacco use, outcomes of smoking cessation interventions, diet/nutrition (e.g., consumption of calories from sugar and fats), and physical activity across all levels of analysis and settings. Special attention should be placed on measures that provide information on children over two years of age with a body mass index in the 95th percentile.

Community interventions—Composite measures are needed that incorporate behavioral, clinical, social, and environmental indicators of cardiovascular health to drive community programs.

Patient-reported outcomes—Measures that assess functional status and symptom control based on patient-reported data may be associated with reducing emergency department visits and readmissions.

NQF-endorsed Prevention and Treatment of Cardiovascular Disease Measures

Table 6 illustrates how the NQF-endorsed measures of prevention and treatment of cardiovascular disease address the above goals, which emphasize primary prevention and early management of cardiovascular disease. The goal areas related to healthy lifestyle behaviors and community interventions to prevent cardiovascular disease present a significant opportunity for measure development. Although the NQF portfolio includes many other endorsed measures of cardiovascular disease, they primarily address specific aspects of care planning and management of existing cardiovascular disease, and therefore are not included here. A more thorough analysis of these measures can be found on page 28 in the section on measures and measure gaps for the Medicare high-impact conditions.

Table 6: Mapping of NQF-endorsed Measures to the NQS Prevention and Treatment of Cardiovascular Disease Goals

Prevention and Treatment of Cardiovascular Disease Goal	Number of NQF-endorsed Measures
Clinical Preventive Services	16
Healthy Lifestyle Behaviors	3
Community Interventions	0

NQF-endorsed Prevention and Treatment of Cardiovascular Disease Measures in Use

All but two of the NQF-endorsed cardiovascular disease measures mapping to the above goals are in use in at least one program type. The measures without an identified use address blood pressure screening in children and adolescents. Twelve measures are in use in two or more programs.

Three measures are in use in four program types:

0018—Controlling High Blood Pressure (PQRS#236)
0027—Smoking and Tobacco Use Cessation (PQRS#308)
0063—Diabetes Lipid Profile (MAP 2013 support: PQRS)

MAP 2013 Pre-Rulemaking Recommendations on the Prevention and Treatment of Cardiovascular Disease

MAP supported an important measure of optimal vascular care for PQRS, which assesses the percentage of adult patients ages 18 to 75 who have ischemic vascular disease with optimally managed modifiable risk factors (i.e., daily aspirin use, blood pressure and cholesterol control, and avoidance of tobacco use). For PQRS, MAP supported a lipid profile measure for patient with diabetes and a hypertension composite measure not endorsed by NQF.

National Priority—Health and Well-being

The National Quality Strategy includes three aspirational goal areas for *working with communities to promote wide use of best practices to enable healthy living*:

1. Promote healthy living and well-being through community interventions that result in improvement of social, economic, and environmental factors.
2. Promote healthy living and well-being through interventions that result in adoption of the most important healthy lifestyle behaviors across the lifespan.
3. Promote healthy living and well-being through receipt of effective clinical preventive services across the lifespan in clinical and community settings.

Health and Well-being Measure Gaps

Clinical preventive services—The review of gaps revealed the need for a composite measure of the highest impact age- and sex-appropriate clinical preventive services. Oral health was highlighted as an area in need of measures, specifically of the prevention of dental caries and of oral health provider assessment of general health (e.g., blood pressure, diabetes, pregnancy). Measure gaps for child and adolescent health include the attainment of developmental milestones, the quality of adolescent well-care visits, the prevention of accident and injury, and the assessment of substance use and binge drinking.

Healthy lifestyle behaviors—Gaps call for a composite measure of healthy lifestyle behaviors, including diet, exercise, and avoidance of smoking and risky alcohol use that can be tracked and monitored at the national, state, community, and provider level. There also is a heightened need for measures of obesity in addition to body mass index, given the risk factors for diabetes, cardiovascular disease, and other chronic conditions, particularly for children.

Community interventions—Measure ideas focus primarily on social determinants of health and adequate social supports in the community. They point to the need for a community index of health—a composite measure of key factors known to have the largest influence on health (e.g., healthy behaviors, social and environmental determinants, clinical indicators). Access to mental health services and community supports and overall integration of mental health into the continuum of care also are identified as critical for community-level measurement.

Health-related quality of life and well-being—Measures are needed to address health-related quality-of-life issues including optimizing, maintaining, or preventing a decline in function as appropriate. Critical are measures that target well-being and major contributors (e.g., social connectedness and emotional health) as well as the burden of illness experienced by patients, families, and caregivers. Finally, measures of productivity (e.g., ability to return to work) are important to understand the health and well-being of a population more broadly and are particularly salient for employers.

Disparities—Measures sensitive to disparities are needed for at-risk populations to effectively and appropriately target resources and interventions. Children from abusive families or foster homes, children who are undocumented, as well as those living in rural and inner-city areas with poor access to care need particular attention.

NQF-endorsed Health and Well-being Measures

Table 7 illustrates how NQF-endorsed measures related to health and well-being address the above goals. This portfolio includes a wide range of screening and immunization/vaccination measures, contributing to the large proportion of measures of clinical preventive services. Many fewer measures address healthy lifestyles or community interventions. The three measures that address children's well-being outside of the traditional boundaries of the healthcare delivery system by assessing school attendance and school and community safety are particularly promising.

Table 7: Mapping of NQF-endorsed Measures to the NQS Health and Well-being Goals

Health and Well-being Goal	Number of NQF-endorsed Measures
Clinical Preventive Services	63
Healthy Lifestyle Behaviors	9
Community Interventions	3

NQF-endorsed Health and Well-being Measures in Use

Of the health and well-being measures mapping to the specific goals, more than 25 percent are in use in at least two program types, and approximately 50 percent are in use in only one program type. Of the measures in use in only one program type, half are in use in federal or state programs only. Fifteen measures—primarily pediatric—mapping to the above goals had no identified use.

Five measures are in use in four program types:

0032—Cervical Cancer Screening
0033—Chlamydia Screening
0038—Childhood Immunization Status (PQRD#240)
0105—Antidepressant Medication Management
0108—Follow-up Care for Children Prescribed ADHD Medication

MAP 2013 Pre-Rulemaking Recommendations on Health and Well-being

MAP supported several mental health and well-being measures for PQRS, including diagnosis and management of ADHD in primary care; level of function evaluation for patients with bipolar disorder; depression remission at six months; and child and adolescent major depressive disorder. MAP supported an influenza vaccination measure for healthcare personnel for Hospital Outpatient Quality Reporting, IRFQR, and PQRS; influenza and pneumococcal assessment and vaccination of residents for IRFQR; and pneumococcal and influenza immunization for HVBP. It also supported the direction of

influenza/pneumococcal immunization for ESRD-QIP. Finally, it supported the direction of healthy term newborn measure for inclusion in HIQR.

National Priority—Access and Affordability

Over the past several years, understanding and addressing access to high-quality, affordable healthcare has become paramount. The United States continues to spend more of its gross domestic product (GDP) on healthcare than any other country in the world, and high medical costs are a burden to a large portion of the population. With healthcare spending growing faster than inflation, public-sector budgets at the local, state, and federal levels face extreme pressure. At the same time, employers are concerned about maintaining coverage, and consumers are increasingly disquieted about unsustainable increases in out-of-pocket healthcare expenses. The continued growth of healthcare expenditures must be reduced through increased efficiency within the healthcare system—but not at the expense of quality. Effective measurement strategies are essential for this effort.

The National Quality Strategy emphasizes the importance of making quality care more accessible and affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models as one of its six priority areas The two goals are to

1. Ensure affordable and accessible high-quality healthcare for people, families, employers, and governments.
2. Support and enable communities to ensure accessible, high-quality care while reducing waste and fraud.

Access and Affordability Measure Gaps

Patient-reported outcomes—The ability to obtain needed care in a timely fashion is dependent on many factors. As a result, a patient's experiences in obtaining consistent insurance coverage, and in accessing services or a usual source of care, are important for understanding barriers to care. Important measurement areas include the ability to obtain needed medications and mental health, oral health, and specialty services, particularly for patients with mental health diagnoses and multiple chronic conditions and for children with special needs. Survey-based measures may provide valuable insights, but more robust measures may be needed to better understand root causes affecting access and affordability.

Transparency of pricing—Purchasers and consumers continue to emphasize the importance of understanding pricing and moving toward improved transparency of data through standardized measurement and reporting.

Disparities—Measures are needed to assess disparities in access and affordability from a patient-centered perspective, particularly with regard to socioeconomic status (SES), race, and ethnicity, and for vulnerable populations and patients living in rural areas.

Cost and burden—Many stakeholders emphasize the need for affordability indices that reflect the burden of healthcare costs on consumers and that include direct costs (e.g., out-of-pocket expenses, personal healthcare expenditures per capita, reductions in wages and benefits as a result of healthcare increases) as well as indirect opportunity costs (e.g., productivity, absenteeism from work and school, and the "cost of neglect" of medical and dental care). Efficiency measures are needed to benchmark providers on cost and quality as well as to estimate the cost of inefficiencies across care settings to further target quality improvement efforts. Also important are measures to identify populations with

high resource use, including individuals with multiple chronic conditions, to better assess the impact of new care delivery models such as patient-centered medical homes and accountable care organizations.

Overuse, waste, and inappropriate care—Measures to assess the extent to which the healthcare system promotes the provision of services that offer little if any value—and, in fact, may be harmful to patients—are critical to closing gaps in variation. Specific areas frequently cited as important for measurement include appropriate, patient-centered and patient-directed end-of-life care; unnecessary emergency department visits and hospital admissions and readmissions (particularly for ambulatory-sensitive conditions); inappropriate medication use and polypharmacy; and duplication of or inappropriate services and testing, particularly imaging. Additional measures that assess the extent of the "demand-side" of overuse (e.g., the rush to new treatments and new technology) and the importance of shared decision making are critical to addressing this gap area.

NQF-endorsed Access and Affordability Measures

Access and affordability remain relatively new areas for measure development and endorsement. NQF's portfolio includes endorsed measures related to access, cost, resource use, waste, and overuse, broadly reflecting the two goal areas above. Stakeholders have noted the importance of identifying measures and gaps related to access, but have indicated that combining access and affordability is confusing. As a result, the analysis points to the need to better define the parameters of affordability through different stakeholder perspectives to have a shared understanding and vocabulary in the field.

Consistent with the two NQS goals, affordability was viewed from the perspective of patients and families (e.g., access to care and out-of-pocket expenses for healthcare) as well as from the perspective of stakeholders interested in drivers of cost, utilization, and resource use. NQF-endorsed measures of access included those that could reflect the ability to obtain needed preventive care (e.g., well-child, medical, dental, and prenatal care), and access to usual sources of care. Measures of cost and resource use also included utilization measures as potential drivers of healthcare cost. Finally, measures of inappropriate care were included as indicators of potential waste and overuse and opportunities for reducing unnecessary variation. Table 8 illustrates the portfolio as mapped to these three areas.

Table 8: Mapping of NQF-endorsed Measures to the NQS Access and Affordability Goals

Access and Affordability Goal	Number of NQF-endorsed Measures
Access	16
Cost and Resource Use	19
Waste, Overuse, and Inappropriate Care	31

NQF-endorsed Access and Affordability Measures in Use

The analysis indicated that all but six of these measures are in use in at least one program type with 14 in use across two or more program types. Of note, none of the NQF-endorsed measures related to cost, resource use, or utilization are in use in more than one program type at this time. Six measures were

classified as not having an identified use, primarily measures related to areas of potential overuse or inappropriate care.

Eleven measures are in use in three program types:

0002—Appropriate Testing for Children with Pharyngitis
0052—Low Back Pain: Use of Imaging Studies
0058—Antibiotic Treatment for Adults with Acute Bronchitis: Avoidance of Inappropriate Use (PQRS #116)
0069—Treatment for Children with Upper Respiratory Infection: Avoidance of Inappropriate Use
0469—PC-01 Elective Delivery (MAP 2013 support: Hospital Value-based Purchasing)
0471—PC-02 Cesarean Section (MAP 2013 support: Hospital Inpatient Quality Reporting)
0657—Otitis Media with Effusion: Systemic Antimicrobials (avoidance of inappropriate use) (MAP 2013 support: PQRS)
1391—Frequency of Ongoing Prenatal Care
1392—Well-child Visits in the First 15 Months of Life
1516—Well-child Visits in the Third, Fourth, Fifth and Sixth Years of Life
1517—Prenatal and Postpartum Care

MAP 2013 Pre-Rulemaking Recommendations on Access and Affordability

As indicated in the previous list, MAP supported further application of access and affordability measures in public programs in its 2013 pre-rulemaking recommendations to HHS. In addition to the above measures, MAP supported measures not yet endorsed by NQF, including a Medicare Spending per Beneficiary measure for HIQR and for HVBP. MAP supported the direction of this measure for LTCHQR and PPS-exempt Cancer Hospital Quality Reporting citing the need for further modification and experience with the measure for these settings. MAP supported the direction of appropriateness measures for PQRS targeting inappropriate maternity care and inappropriate use of antibiotics for adult sinusitis. Finally, MAP supported the direction of a number of episode groupers geared toward high-impact conditions, including AMI, cardiovascular disease, and asthma for the Value-based Payment Modifier Program as well as an AMI episode of care measure for inclusion in HIQR.

Analysis of Measures and Measure Gaps: High-impact Medicare Conditions

This section of the report provides an analysis of measures and measure gaps with regard to the 20 high-impact Medicare conditions, which were prioritized under a prior HHS-funded project.[3] It includes details on measure gaps, the availability of NQF-endorsed measures, and the use or application of these measures in public and private programs. In these analyses, some conditions were combined because of the challenges of teasing out measures and measure gaps for specific disease states or conditions (e.g., cardiovascular disease), or because of the low number of existing measures and broadly defined measure gaps that could not be "assigned" to one condition. Furthermore, the NQF committee charged with the initial prioritization debated the merits of condition-specific measures and recommended that future discussions focus on cross-cutting measures to promote patient-centered care regardless of disease or condition.

Table 9 presents the number of NQF-endorsed measures for each high-impact Medicare condition. While a lack of measures in certain areas may be concerning, measure development should be considered in the context of patient-centered, cross-cutting measures that apply across patient populations regardless of condition. Please see Appendix D for a list of these measures.

Table 9: Number of NQF-endorsed Measures for High-impact Medicare Conditions

High-impact Medicare Condition	Number of NQF-endorsed Measures	High-impact Medicare Condition	Number of NQF-endorsed Measures
1. Major Depression	16	11. Hip/Pelvic Fracture	6
2. Congestive Heart Failure	16	12. Chronic Renal Disease	27
3. Ischemic Heart Disease	23	13. Prostate Cancer	5
4. Diabetes	31	14. Rheumatoid Arthritis/ Osteoarthritis	19
5. Stroke/TIA	29	15. Atrial Fibrillation	4
6. Alzheimer's Disease	0	16. Lung Cancer	7
7. Breast Cancer	15	17. Cataract	3
8. COPD	8	18. Glaucoma	2
9. Acute MI	30	19. Osteoporosis	9
10. Colorectal Cancer	11	20. Endometrial Cancer	1

[3] NQF: Measure Prioritization Advisory Committee; Measure Development and Endorsement Agenda; 2011.

Alzheimer's Disease

Alzheimer's Disease Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Safety awareness for the cognitively compromised patient;
- Use of antipsychotics with dementia or Alzheimer's disease patients, particularly in long-term care settings;
- Access to high-quality palliative and/or end-of life care services and use of advance directives;
- Functional status outcomes and rehab measures; and
- Caregiver support.

NQF-endorsed Alzheimer's Disease Measures

NQF's portfolio includes no measures related specifically to Alzheimer's Disease, which may suggest the need for further exploration of gaps in this area.

Cancer

The category of cancer includes breast, colorectal, prostate, lung, and endometrial cancer.

Cancer Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- General screening, prevention, treatment, communication, coordination, and care transitions;
- Timeliness of access to high-quality palliative care or hospice services, including pain and symptom management and psychosocial support;
- Patient-reported outcomes of quality-of life and shared decision making;
- Total cost of care and value;
- Effectiveness of surgical, radiation, and medical therapies; and
- Population-specific measures, including measures that address healthcare disparities.

NQF-endorsed Cancer Measures

NQF's portfolio includes 34 endorsed measures for the high-impact cancer conditions listed above. The majority of these are clinical process measures and do not address specific NQS priority areas. Measures to address care coordination and care transitions, access and affordability, health and well-being, and person- and family-centered care are lacking—all important areas for this patient population. Several measures are applicable to more than one type of cancer.

NQF-endorsed Cancer Measures in Use

While all of these measures were identified as in use in at least one program type, only two were in use across two or more program types:

0034—Colorectal Cancer Screening
0567—Appropriate Work Up Prior to Endometrial Ablation Procedure

Cardiovascular Disease

The category of cardiovascular disease includes congestive heart failure, ischemic heart disease, acute myocardial infarction, and atrial fibrillation.

Cardiovascular Disease Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- A composite measure of the appropriateness of all cardiac imaging with the ability to stratify by procedure for quality improvement purposes;
- A composite "ABCs" measure—appropriate aspirin use, blood pressure/cholesterol control, and smoking cessation—to assess evidence-based prevention and treatment, with broader population-level measures to assess blood pressure and cholesterol screening and control;
- Medication management and adherence as part of follow-up care for secondary prevention;
- Specific measures of adverse drug reactions for cardiac medications (e.g., aspirin and warfarin for coronary artery disease and atrial fibrillation);
- Functional status, symptoms, and health-related quality of life (e.g., physical, mental, social);
- Patient-reported outcomes of rehabilitation at a facility, system, and community level; and
- Intermediate clinical outcomes including physiologic and biochemical markers.

NQF-endorsed Cardiovascular Disease Measures

NQF's portfolio includes 70 measures related to the above conditions. Most of the measures reflect aspects of clinical care planning and management of existing cardiovascular disease as opposed to prevention of cardiovascular disease. Nearly 20 measures address aspects of safety, but very few address aspects of affordability, care coordination, or person- and family-centered care. Several measures are applicable to more than one type of cancer.

NQF-endorsed Cardiovascular Disease Measures in Use

Over 90 percent of these cardiovascular disease measures are in use in at least one program type, with approximately 40 percent in use across multiple program types. Of the measures in use in only one program type, 16 measures are in use in private payer programs, seven in federal programs, four in state programs, and nine in other program types. Five measures had no identified use in the programs analyzed.

Eleven cardiovascular disease measures are in use across three program types:

0066—Chronic Stable Coronary Artery Disease: ACE Inhibitor or ARM Therapy
0067—Coronary Artery Disease: Oral Antiplatelet Therapy
0068—Ischemic Vascular Disease: Use of Aspirin or Another Antithrombotic
0073—Ischemic Vascular Disease: Blood Pressure Management Control
0074—Coronary Artery Disease: Drug Therapy for Lowering LDL-Cholesterol (PQRS 197)
0075—Ischemic Vascular Disease: Low Density Lipoprotein Control
0079—Heart Failure: Left Ventricular Function Assessment
0081—Heart Failure: Angiotensin-Converting Enzyme Inhibitor
0229—Hospital 30-day, All-Cause, Risk-Standardized Mortality Rate Following Heart Failure Hospitalization
0277—Heart Failure Admission Rate (PQI 8)
0505—Acute Myocardial Infarction 30-Day Risk Standardized Readmission Measure

Cataract and Glaucoma

Cataract and Glaucoma Measure Gaps

The projects referenced through this analysis did not reveal gaps specific to these two conditions. The small number of NQF-endorsed measures related to these conditions may suggest the need to conduct further exploration of gaps in this area.

NQF-endorsed Cataract and Glaucoma Measures

NQF's portfolio includes a total of three cataract and two glaucoma measures, four of which address outcomes including visual acuity, visual function, complications, and reduction of intraocular pressure.

NQF-endorsed Cataract and Glaucoma Measures in Use

All five cataract and glaucoma measures are in use in federal programs only.

Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Efficiency and overutilization of services for pulmonary conditions;
- Palliative care for patients with end-stage pulmonary conditions;
- Comprehensive asthma education; and
- Functional status and quality of life.

NQF-endorsed COPD Measures

NQF's portfolio includes a total of eight endorsed measures. While several are clinical process measures, two address health-related quality of life and functional capacity before and after pulmonary rehabilitation, and one relative resource use measure addresses an important aspect of affordability. Still, the number of measures of access and affordability, health and well-being, and person- and family-centered care remains small.

NQF-endorsed COPD Measures in Use

All but two of these measures are in use in at least one program type.

Only one COPD measure is in use in three program types:

0275—Chronic Obstructive Pulmonary Disease (PQI 5)

Chronic Renal Disease

Chronic Renal Disease Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Patient-reported outcomes of pain management and functional wellness;
- Timeliness of access to high-quality palliative or end-of-life care services;

- Disparities in care;
- General prevention and treatment, including comorbid diseases of diabetes and hypertension;
- Communication, coordination, and transitions in care; and
- Dialysis adequacy.

NQF-endorsed Chronic Renal Disease Measures

The NQF portfolio includes 27 endorsed chronic renal disease measures, which primarily address aspects of dialysis. Measures to address care coordination, affordability, health and well-being, safety, and person- and family-centered care measures are lacking.

NQF-endorsed Chronic Renal Disease Measures in Use

Half of these measures were classified as not in use in any programs analyzed. Of these 14 measures, many address dialysis and specific clinical indicators, but one measure addresses the assessment of health-related quality of life (physical and mental functioning). Of the 11 measures in use in only one program, six are in use in federal programs only, while one is in use in private payer and five in other program types, respectively.

Two chronic renal disease measures are in use across more than one type of program:

1460—Bloodstream Infection in Hemodialysis Outpatients
1668—Laboratory Testing (Lipid Profile)

Diabetes

Diabetes Measure Gaps

Key gaps areas to consider for measure development, endorsement, and use include the following:

- Patient-centered measures of lifestyle management and health-related quality of life;
- Access to care and medications;
- Treatment preferences, psychosocial needs, shared decision making, family engagement, cultural diversity, and health literacy;
- General prevention and treatment of diabetes, especially glycemic control; and
- Communication, coordination, and transitions of care.

NQF-endorsed Diabetes Measures

The NQF portfolio includes 31 diabetes measures, which are primarily clinical process measures. Measures of care coordination, affordability, safety, health and well-being, and person- and family-centered care are lacking. A few measures address the issue of potentially avoidable hospital admissions and readmissions, and one relative resource use measures addresses an important aspect of affordability.

NQF-endorsed Diabetes Measures in Use

All but one of the diabetes-related NQF-endorsed measures—adherence to chronic medications for individuals with diabetes mellitus—is in use in at least one program, with half of them in use across multiple programs. It may be important to understand why a medication management measure for this high-impact condition is not in use.

Eleven diabetes measures are in use in three or more program types:

0055—Diabetes: Eye Exam
0056—Diabetes: Foot Exam
0057—Diabetes: Hemoglobin A1c Testing
0059—Diabetes: Hemoglobin A1c Poor Control
0061—Diabetes: Blood Pressure Management
0062—Diabetes: Urine Protein Screening
0063—Diabetes: Lipid Profile
0064—Diabetes Measure Pair: Lipid Management
0066—Chronic Stable Coronary Artery Disease—ACE Inhibitor or ARB Therapy—Diabetes/LVSD
0272—Diabetes Short-term Complications Admission Rate (PQI 1)
0575—Comprehensive Diabetes Care: HbA1c Control

Major Depression

Major Depression Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- An adequate plan of care, comprehensive and ongoing care management, and consistent and timely follow-up for mental health, substance use, and medical issues, including depression-specific interventions, patient education, and plans for monitoring medication adherence, particularly for outpatients prescribed multiple medications;
- Additional screenings and assessments for alcohol and drug use, and assessment of medical and psychiatric conditions or comorbidities (e.g., cognitive impairment, psychosocial health, and bipolar disorder);
- Use of patient-reported measures including important outcomes related to social and occupational functioning and stabilization of coexisting conditions, as well as consequences of substance use for patients with substance use illness;
- More detail to define what constitutes follow-up for depression once a patient is diagnosed and treatment is initiated;
- Effectiveness of the integration of mental health services into primary care practice;
- The occurrence of comorbidities, as well as global assessments of function, health-related quality of life, and issues of substance abuse;
- Access to and coordination of mental health services in the community, particularly between behavioral health and other human services; and
- Specific measures for patients with a diagnosis of cancer, end-stage renal disease, post-partum depression, post-traumatic stress disorder, and diabetes.

NQF-endorsed Major Depression Measures

As the leading high-impact Medicare condition,[4] depression is a high-priority area for measurement. The NQF portfolio includes 16 endorsed measures related to major depression in adult populations. Over half of the measures address assessment, evaluation, or screening. Several measures address aspects of care coordination, including continuing care planning and follow-up after hospitalization, including three

[4] NQF: Measure Prioritization Advisory Committee; Measure Development and Endorsement Agenda; 2011.

measures—use of the PHQ-9 tool and 6- and 12-month follow-up—that are moving the field toward patient-reported outcomes. Measures of access and affordability, health and well-being, and person- and family-centered care are lacking.

NQF-endorsed Major Depression Measures in Use

All but one of these measures are in use in at least one program type, with six in use in two or more programs. Of the nine measures in use in one program type, eight are in use in federal programs only.

Four depression measures are in use in three or more program types:

0105—Antidepressant Medication Management
0576—Follow-up After Hospitalization for Mental Illness
0710—Depression Remission at Twelve Months
0712—Depression Utilization of the PHQ-9 Tool

Musculoskeletal Conditions

The category of musculoskeletal conditions includes hip and pelvic fracture, osteoporosis, and rheumatoid arthritis/osteoarthritis.

Musculoskeletal Condition Measure Gaps

The projects referenced through this analysis did not reveal any specific gaps in this area. Although there are a number of NQF-endorsed measures related to these conditions, the breadth of the conditions suggests the need for further exploration and prioritization in this area.

NQF-endorsed Musculoskeletal Condition Measures

NQF's portfolio includes a total of 30 measures related to the above conditions. Although the majority of these reflect clinical process measures, seven address functional status changes in orthopedic patients. Measures of care coordination across providers and throughout a patient's episode of care remain significant gap areas, as do measures of health and well-being and affordability. Given that treatment for some musculoskeletal conditions may be preference-sensitive (e.g., for joint replacements or spinal surgeries) person-centered measures of shared decision making may be particularly important. Several measures are applicable to more than one type of cancer.

NQF-endorsed Musculoskeletal Condition Measures in Use

All of these measures are in use in at least one program type, with approximately 30 percent in use across multiple program types. Of the 20 measures in use in only one program type, approximately half are in use in federal programs, while the other half are in use in private payer programs.

Two measures are in use in three or more program types:

0054—Rheumatoid Arthritis: Disease Modifying Anti-rheumatic Drug Therapy (PQRS 108)
0354—Hip Fracture Mortality Rate (IQI 19)

Stroke/Transient Ischemic Attack

Stroke/Transient Ischemic Attack (TIA) Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Safety awareness for the cognitively compromised patient;
- Access to high-quality palliative and/or end-of life care services and use of advance directives;
- Functional status outcomes and rehab measures; and
- Caregiver support.

NQF-endorsed Stroke/TIA Measures

NQF's portfolio includes a total of 29 measures related to stroke/TIA, most of which reflect clinical processes. Measures of care coordination, affordability, health and well-being, safety, and person- and family-centered care are lacking.

NQF-endorsed Stroke/TIA Measures in Use

While all of these measures are in use in at least one program type, only eight measures are in use across more than one program type. Of the 21 measures in use in only one program type, 16 are in use in federal programs only.

Seven stroke measures are in use in three or more program types:

0435—Stroke-2 Ischemic Stroke—Discharge on Anti-thrombotics
0436—Stroke-3 Ischemic Stroke—Anticoagulation for A-fib/Flutter
0437—Stroke and Stroke Rehabilitation: Thrombolytic Therapy (PQRS 187)
0438—Stroke-5 Ischemic Stroke—Antithrombotic Therapy by Day 2
0439—Stroke-6 Ischemic Stroke—Discharge on Statins
0440—Stroke-8 Ischemic or Hemorrhagic Stroke—Stroke Education
0441—Stroke-10 Ischemic or Hemorrhagic Stroke—Rehabilitation Assessment

Analysis of Measures and Measure Gaps: High-impact Child Health Conditions

This section of the report provides an analysis of measures and measure gaps with regard to the 24 high-impact child health conditions, which were prioritized under a prior HHS project.[5] Each section details measure gaps, the availability of NQF-endorsed measures, and the use or application of these measures in public and private programs. In these analyses, some conditions were grouped because of the challenges of teasing out measures and measure gaps for specific disease states or conditions, or because of the low number of existing measures and broadly defined measure gaps that could not be "assigned" to one condition (e.g., Asperger's, autism). Furthermore, the NQF committee charged with the initial prioritization debated the merits of condition-specific measures and recommended a focus on cross-cutting measures to promote patient-centered care regardless of disease or condition.

Table 10 presents a summary of the number of NQF-endorsed measures available for the high-impact child health conditions. While a lack of measures in certain areas may be concerning, further measure development should be considered in the context of patient-centered and cross-cutting measures that apply across populations regardless of disease state. Please see Appendix E for a list of these condition-specific measures.

Table 10: Number of NQF-endorsed Measures for High-impact Child Health Conditions

High-impact Child Health Condition	Number of NQF-endorsed Measures	High-impact Child Health Condition	Number of NQF-endorsed Measures
1. Tobacco Use	3	13. Learning Disability	0
2. Overweight/Obese	5	14. Anxiety Problems	0
3. Risk of Developmental Delays or Behavioral Problems	5	15. Attention Deficit Disorder/Attention Hyperactivity Disorder	3
4. Oral Health	4	16. Vision Problems Not Corrected by Glasses	1
5. Diabetes	1	17. Bone, Joint, or Muscle Problems	1
6. Asthma	9	18. Migraine Headaches	0
7. Depression	7	19. Food or Digestive Allergy	0
8. Behavioral or Conduct	0	20. Hearing Problems	12

[5] NQF: Measure Prioritization Advisory Committee; Measure Development and Endorsement Agenda; 2011.

High-impact Child Health Condition	Number of NQF-endorsed Measures	High-impact Child Health Condition	Number of NQF-endorsed Measures
Problem			
9. Chronic Ear Infections	0	21. Stuttering, Stammering, or Other Speech Problems	0
10. Autism, Autism Spectrum Disorders, Asperger's, Pervasive Development Disorder	0	22. Brain Injury or Concussion	0
11. Developmental Delay	0	23. Epilepsy or Seizure Disorder	0
12. Environmental Allergies	0	24. Tourette Syndrome	0

Allergies

This category includes food and digestive allergies and environmental allergies.

Allergies Measure Gaps

The projects referenced through this analysis did not reveal any measure gaps specific to these conditions.

NQF-endorsed Allergies Measures

NQF's portfolio includes no allergy-related measures, which may suggest the need for further exploration of gaps in this area.

Asthma

Asthma Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Efficiency and overutilization of services for asthma;
- Comprehensive asthma education;
- Functional status and quality of life;
- Pediatric asthma admissions; and
- Emergency department treatment and coordination of asthma care, particularly for patients not admitted.

NQF-endorsed Asthma Measures

The NQF portfolio includes nine pediatric asthma measures, most of which address medication management and pharmacologic therapy. Two measures address emergency department visits and relative resource use for people with asthma—both important issues related to affordability.

NQF-endorsed Asthma Measures in Use

All of these measures are in use in at least one program type, with two measures in use across two program types.

Bone, Joint, or Muscle Problems

Bone, Joint, or Muscle Problem Measure Gaps

The projects referenced through this analysis did not reveal any gaps specific to this condition.

NQF-endorsed Bone, Joint, or Muscle Problem Measures

NQF's portfolio includes one musculoskeletal measure that may be applicable to children with bone, joint, or muscle problems.

NQF-endorsed Bone, Joint, or Muscle Problem Measures in Use

This measure is in use in one federal program.

Depression

Depression Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Additional screenings and assessments for alcohol and drug use, and assessment of medical and psychiatric conditions or comorbidities (e.g., cognitive impairment, psychosocial health, and bipolar disorder);
- Effectiveness of the integration of mental health services into primary care practice;
- The occurrence of comorbidities, as well as global assessments of function, health-related quality of life, and issues of substance abuse; and
- Access to and coordination of mental health services in the community, particularly between behavioral health and other human services (e.g., education).

NQF-endorsed Depression Measures

As the seventh-ranked high-impact child health condition,[6] depression is a high-priority area for measurement. However, there are only seven measures specific to depression for the pediatric population, primarily reflecting screening and assessment.

NQF-endorsed Depression Measures in Use

All but three of these depression measures are in use in at least one federal or state program type.

One measure is in use across three program types:

0576—Follow-up After Hospitalization for Mental Illness

[6] NQF: Measure Prioritization Advisory Committee; Measure Development and Endorsement Agenda; 2011.

Developmental and Behavioral Conditions

This category includes risk of developmental delay or behavioral problems, behavioral or conduct problem, Asperger syndrome, pervasive developmental disorder, autism and autism spectrum disorders, developmental delay, learning disability, anxiety problems, attention deficit disorder/attention deficit hyperactivity disorder, and stuttering, stammering, or other speech problems.

Developmental and Behavioral Condition Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Identification of substance abuse disorders and serious emotional disturbances, such as conduct disorders or oppositional defiance;
- School performance and risk of dropout; and
- Family intactness.

NQF-endorsed Developmental and Behavioral Condition Measures

The NQF portfolio includes eight endorsed measures related to the above conditions, most of which focus on developmental screening and assessment.

NQF-endorsed Developmental and Behavioral Condition Measures in Use

Of this small group of measures, seven are in use in at least one program type, three of which are in use across two or more programs. One developmental screening measure had no identified application.

Three health and development measures are in use across two program types:

0011—Promoting Healthy Development Survey
0108—Follow-up Care for Children Prescribed ADHD Medication
1448—Developmental Screening in the First Three Years of Life

Diabetes

Diabetes Measure Gaps

Specific gaps related to childhood diabetes were not identified, however the gaps identified more broadly for diabetes offer guidance for future measure development, endorsement, and use. Key gaps areas to consider include the following:

- Patient-centered measures of lifestyle management and health-related quality of life;
- Access to care and medications;
- Treatment preferences, psychosocial needs, shared decision making, family engagement, cultural diversity, and health literacy;
- General prevention and treatment of diabetes, especially glycemic control; and
- Communication, coordination, and transitions of care.

NQF-endorsed Diabetes Measures

The NQF portfolio includes one measure related to hemoglobin A1C testing for children with diabetes.

NQF-endorsed Diabetes Measures in Use

The following measure is in use across three program types:

0060—Diabetes: Hemoglobin A1c Test for Pediatric Patients

Eye and Ear Conditions

The eye and ear conditions category includes chronic ear infections, hearing problems, and vision problems not corrected by glasses.

Eye and Ear Measure Gaps

The projects referenced through this analysis did not reveal any specific gaps in this area. The small number of NQF-endorsed measures related to these conditions suggests the need to conduct further exploration in this area.

NQF-endorsed Eye and Ear Measures

NQF's portfolio includes 13 endorsed measures related to eye and ear disorders, many of which pertain to treatment of otitis externa or otitis media, as well as hearing screenings. Only one measure addresses vision problems.

NQF-endorsed Eye and Ear Measures in Use

Half of the measures are in use in only one program type while three measures had no identified use—newborn hearing screening, avoidance of inappropriate use of systemic corticosteroids for otitis media with effusion, and pre-school vision screening in the medical home.

Four ear measures are in use in two or more program types:

0653—Acute Otitis Externa: Topical Therapy (PQRS 91)
0654—Acute Otitis Externa: Systemic Antimicrobial Therapy—Avoidance of Inappropriate Use (PQRS 93)
0657—Otitis Media with Effusion: Systemic Antimicrobials—Avoidance of Inappropriate Use
1354—Hearing Screening Prior to Hospital Discharge

Neurological Disorders

The category of neurological disorders includes migraine headaches, brain injury or concussion, epilepsy or seizure disorder, and Tourette syndrome.

Neurological Disorder Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Safety awareness for the cognitively compromised patient;
- Functional status outcomes; and
- Family and caregiver support.

NQF-endorsed Neurological Disorder Measures

NQF's portfolio includes no measures related to the pediatric conditions specified above, which may suggest the need for further exploration of gaps in this area.

Oral Health

Oral Health Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Dental caries and untreated dental decay; and
- Dental caries prevention;
- Adequacy of oral health workforce;
- Disparities; and
- Cost of oral healthcare.

NQF-endorsed Oral Health Measures

The NQF portfolio includes four endorsed measures, which primarily address access to preventive dental care. One measure addresses children who have dental caries or cavities.

NQF-endorsed Oral Health Measures in Use

All of these oral health measures are in use, but only one is in use across more than one program type.

Overweight and Obesity

Overweight and Obesity Measure Gaps

Key gaps to consider for measure development, endorsement, and use include the following:

- Diet/nutrition (e.g., consumption of calories from sugar and fats), and physical activity across all levels of analysis and settings; and
- Measures that provide information on children over two years of age with a 95th percentile BMI.

NQF-endorsed Overweight and Obesity Measures

NQF's portfolio includes a total of five endorsed measures, which address screening and assessment.

NQF-endorsed Overweight and Obesity Measures in Use

Three measures of healthy physical development (which include BMI assessment, physical activity, nutrition, and screen time counseling) had no identified use.

One measure is in use across federal, state, and private-payer programs.

0024—Weight Assessment and Counseling for Children and Adolescents

Tobacco Use

Tobacco Use Measure Gaps

Key gaps to consider include measures for clinical preventive services and the adoption of evidence-based interventions to improve child health. The projects referenced through this analysis did not reveal any gaps specific to this issue.

NQF-endorsed Tobacco Use Measures

NQF's portfolio includes three endorsed measures related to tobacco use or exposure to secondhand smoke in the home.

NQF-endorsed Tobacco Use Measures in Use

Two of these measures—risky behavior assessment or counseling by age 13 and age 18—are not in use in any of the programs analyzed.

The Path Forward

We—the public and private stakeholders committed to building a solid foundation for quality improvement—are entering the second decade of standardized performance measure endorsement and use. There is strong desire by all stakeholders across the quality enterprise to accelerate efforts to fill, rather than just identify, key measurement gaps. This report's goals are to focus the attention of those organizations that fund, develop, endorse, and use measures on existing gaps, while laying out practical recommendations for filling gaps in an organized, efficient, and collaborative way. The report also proposes an investment strategy aligned with the NQS to fill these gaps more rapidly.

Recommendation #1—Use Existing Measures Wisely

As quality improvement in healthcare has advanced, use of performance measures has proliferated. Measures in use across the public and private sectors are intended to drive better health and healthcare and improve affordability, yet some are duplicative or overlapping, and others assess similar concepts and/or patient populations differently. Such measures increase data collection burden and create confusion in interpreting performance results in the implementation and use of measures.

The majority of NQF-endorsed measures are in use. However, the analyses in this report reveal that several potentially powerful measures either have been sidelined or are used in a limited manner. For example, even though policymakers and healthcare stakeholders have expressed a strong desire to prevent patient harm and reduce waste, several NQF-endorsed measures of overuse and appropriateness have not been incorporated on a large scale into payment and public reporting programs or quality improvement initiatives. There are multiple reasons for this; the measures may be relatively new (i.e., endorsed within a year); they may be perceived as overlapping or redundant with other measures; or they may be perceived as difficult to implement. Deeper exploration of these issues will help to identify actionable strategies that can facilitate better use of existing measures.

Our evaluation of measure use points to immediate opportunities to better align measure selection and use across and within sectors. Unaligned measure use drains valuable time and resources, frustrating and overwhelming providers and others with multiple, uncoordinated measure reporting requests; generates non-comparable information that limits our national understanding of what has and has not been effective; and hinders consumers' and purchasers' ability to make well-informed decisions by creating confusion instead of clarity. Measures that have proven to be successful tools for quality improvement and accountability ideally should be used in as many programs and sectors as possible.

To improve the use of available measures for driving quality improvement and affordability, we should

- Widely use measures with the potential to improve performance and reduce burden, striving to remove duplicative, redundant, or overlapping measures whenever possible;
- Better understand why certain endorsed measures have not had broader uptake in accountability and quality improvement programs and identify strategies for increasing rapid implementation of high-value measures;
- Through multistakeholder input identify opportunities to align measures and incentives across public programs and between the public and private sectors; and
- Make measurement information accessible and easy to understand for a variety of audiences, and communicate with stakeholders how existing measures can enhance their quality improvement efforts.

Recommendation #2—Get to the Next Generation of Measures Faster

In the past few years, NQF has striven to move away from measures that add burden without adding value, and has been working with others to lay a foundation for a new generation of increasingly complicated but important measures, including composites, PROs, eMeasures, and those that evaluate resource use and population health. Development of these measures requires focus, collaboration, lead time, and sufficient funding, but should be a high priority for the measure development community. These much needed, hard-to-create and difficult-to-implement measures will demand optimal stewardship of the limited resources for measure development, endorsement, and implementation. To address this issue, NQF will catalyze gap filling using a collaborative multistakeholder model—the "measure incubator"—to expedite the development and endorsement of high-priority measures in the most efficient and cost-effective way possible. Although this report identifies many conceptual ideas for measurement, much more specificity is needed along the measure cycle pathway to ensure that measure development and the endorsement process result in measures that matter.

Through multistakeholder input and in collaboration with measure developers, we should deliberately prioritize measurement needs to ensure that the measures that matter are developed, tested, and submitted to NQF for endorsement as quickly as possible—beginning with the two high-priority areas included in this report. This prioritization process should include specific decisions on

- The highest priority populations and settings for measurement to spur improvement;
- The role of endorsed measures for accountability and for quality improvement purposes and their use in specific programs;
- Immediate opportunities for advancing the use of eMeasures; and
- Endorsement of high-priority measures through the most expeditious and efficient process to more quickly move them into the marketplace.

Recommendation #3—Commit to a Shared Vision of Performance Measurement

The quality community's great strides during the past ten years are the result of collaboration, trust, and commitment to a shared cause. Healthcare continues to evolve, and the vision for performance measurement and quality improvement must adapt to the healthcare of tomorrow. The current portfolio of NQF-endorsed measures can take us part of the way, but it is widely acknowledged that we have a long way to go. It is imperative that the public and private sectors embark on a shared path.

A shared vision for future investment in performance measurement can further unite all stakeholders. With this in mind, we put forth for consideration an oversimplified investment schema for HHS consideration to promote responsible stewardship of the limited resources at our disposal:

- Prioritize measure gaps through a multistakeholder process and work with funders to identify partnership opportunities for rapid-cycle measure development and endorsement;
- Create a collaborative space to facilitate discussion and identify strategies to fill gaps including where measures exist that could be beneficial if used more broadly, by adapting or expanding the measures to additional high-priority settings or populations; and
- Where measures exist but are not widely implemented, understand barriers to implementation by systematically collecting uniform, real-time information about measure use, feasibility, and effectiveness, and invest in infrastructure to move measurement forward.

Measure development and endorsement decision making supported by this investment schema may accelerate our efforts to more rapidly fill measure gaps with measures that matter most to stakeholders.

Appendix A: National Quality Strategy Priorities, Goals, and Measures[7]

Priority: Making care safer by reducing harm caused in the delivery of care.

Goals

1. Reduce preventable hospital admissions and readmissions.
2. Reduce the incidence of adverse healthcare-associated conditions.
3. Reduce harm from inappropriate or unnecessary care.

Measures

- *Incidence of measurable hospital-acquired conditions*
- *All-payer 30-day readmission rate*

Priority: Ensuring that each person and family member is engaged as a partner in his or her care.

Goals

1. Improve patient, family, and caregiver experience of care related to quality, safety, and access across settings.
2. In partnership with patients, families, and caregivers—and using a shared decision making process—develop culturally sensitive and understandable care plans.
3. Enable patients and their families and caregivers to navigate, coordinate, and manage their care appropriately and effectively.

Measures

- *Adults who needed care right away for an illness, injury, or condition in the last 12 months who sometimes or never got care as soon as wanted*
- *People with a usual source of care whose healthcare providers sometimes or never discuss decisions with them*

Priority: Promoting effective communication and coordination of care.

Goals

1. Improve the quality of care transitions and communications across care settings.
2. Improve the quality of life for patients with chronic illness and disability by following a current care plan that anticipates and addresses pain and symptom management, psychosocial needs, and functional status.
3. Establish shared accountability and integration of communities and healthcare systems to improve quality of care and reduce health disparities.

Measures

- *Percentage of children needing care coordination who receive effective care coordination*
- *3-Item Care Transition Measure*

[7] 2012 Annual Progress Report to Congress: National Strategy for Quality Improvement in Healthcare; 2012.

Priority: Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.

Goals

1. Promote cardiovascular health through community interventions that result in improvement of social, economic, and environmental factors.
2. Promote cardiovascular health through interventions that result in adoption of the most important healthy lifestyle behaviors across the lifespan.
3. Promote cardiovascular health through receipt of effective clinical preventive services across the lifespan in clinical and community settings.

Measures

- *People at increased risk of cardiovascular disease who are taking aspirin (A)*
- *People with hypertension who have adequately controlled blood pressure (B)*
- *People with high cholesterol who have adequately managed hyperlipidemia (C)*
- *People trying to quit smoking who get help (S)*

Priority: Working with communities to promote wide use of best practices to enable healthy living.

Goals

1. Promote healthy living and well-being through community interventions that result in improvement of social, economic, and environmental factors.
2. Promote healthy living and well-being through interventions that result in adoption of the most important healthy lifestyle behaviors across the lifespan.
3. Promote healthy living and well-being through receipt of effective clinical preventive services across the lifespan in clinical and community settings.

Measures

- *Percentage of adults who reported symptoms of a major depressive episode (MDE) in the last 12 months who received treatment for depression in the last 12 months*
- *Proportion of adults who are obese*

Priority: Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models.

Goals

1. Ensure affordable and accessible high-quality healthcare for people, families, employers, and governments.
2. Support and enable communities to ensure accessible, high-quality care while reducing waste and fraud.

Measures

- *Percentage of people under 65 with out-of-pocket medical and premium expenses greater than 10 percent of income*
- *Personal healthcare expenditures per capita*

Appendix B: Reference List

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Appendix C: Stakeholders Providing Input

Stakeholder Organizations Participating in Interviews

Maine Health
Oregon Quality Corporation
Puget Sound Health Alliance
Informed Patient Institute
California Office of the Patient Advocate
Washington State
Continuing Care of North Carolina
Minnesota Community Measurement
National Business Coalition on Health eValue8 Program
Arkansas Medicaid Enterprise
Wyoming Department of Health

Stakeholder Organizations Participating in Measure Developer Workshop

Agency for Healthcare Research and Quality
AMA Physician Consortium for Performance Improvement
American College of Radiology
American College of Rheumatology
American Hospital Association
American Nurses Association
ASC Quality Collaboration
Federation of American Hospitals
Health Services Advisory Group
Heart Rhythm Society
Infectious Diseases Society of America
Mathematica Policy Research
National Association of Public Hospitals and Health Systems
National Committee for Quality Assurance
National Database of Nursing Quality Indicators
The Joint Commission
The Lewin Group

Appendix D: NQF-Endorsed High-impact Medicare Condition Measures

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Major Depression	0008	Experience of Care and Health Outcomes (ECHO) Survey (Behavioral Health, Managed Care Versions)
Major Depression	0103	Major Depressive Disorder (MDD): Diagnostic Evaluation
Major Depression	0104	Major Depressive Disorder (MDD): Suicide Risk Assessment
Major Depression	0105	Antidepressant Medication Management
Major Depression	0109	Bipolar Disorder and Major Depression: Assessment for Manic or Hypomanic Behaviors
Major Depression	0110	Bipolar Disorder and Major Depression: Appraisal for Alcohol or Chemical Substance Use
Major Depression	0418	Screening for Clinical Depression
Major Depression	0518	Depression Assessment Conducted
Major Depression	0557	HBIPS-6 Creation of a Post-Discharge Continuing Care Plan
Major Depression	0558	HBIPS-7 Post-Discharge Continuing Care Plan Transmission to Next Level of Care Provider Upon Discharge
Major Depression	0576	Follow-Up After Hospitalization for Mental Illness
Major Depression	0690	Percent of Residents Who Have Depressive Symptoms (Long-Stay)
Major Depression	0710	Depression Remission At Twelve Months
Major Depression	0711	Depression Remission At Six Months
Major Depression	0712	Depression Utilization of the PHQ-9 Tool
Major Depression	1401	Maternal Depression Screening
Congestive Heart Failure	0066	Chronic Stable Coronary Artery Disease: ACE Inhibitor or ARB Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)
Congestive Heart Failure	0078	Heart Failure Assessment of Clinical Symptoms of Volume Overload
Congestive Heart Failure	0079	Heart Failure: Left Ventricular Function (LVF) Assessment

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Congestive Heart Failure	0081	Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
Congestive Heart Failure	0083	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
Congestive Heart Failure	0135	HF-2 Evaluation of Left Ventricular Systolic Function
Congestive Heart Failure	0162	ACEI or ARB for Left Ventricular Systolic Dysfunction - Heart Failure (HF) Patients
Congestive Heart Failure	0229	Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate Following Heart Failure Hospitalization for Patients 18 or Older
Congestive Heart Failure	0277	Heart Failure Admission Rate (PQI 8)
Congestive Heart Failure	0330	Heart Failure 30-Day Risk Standardized Readmission Measure
Congestive Heart Failure	0358	Congestive Heart Failure (CHF) Mortality Rate (IQI 16)
Congestive Heart Failure	0521	Heart Failure Symptoms Addressed During Short Term Episodes of Care
Congestive Heart Failure	0610	Heart Failure - Use of ACE Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) Therapy
Congestive Heart Failure	0615	Heart Failure - Use of Beta Blocker Therapy
Congestive Heart Failure	0699	30-Day Post-Hospital HF Discharge Care Transition Composite Measure
Congestive Heart Failure	1522	ACE/ARB Therapy At Discharge for ICD Implant Patients with LVSD
Ischemic Heart Disease	0066	Chronic Stable Coronary Artery Disease: ACE Inhibitor or ARB Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)
Ischemic Heart Disease	0067	Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD
Ischemic Heart Disease	0068	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Ischemic Heart Disease	0070	Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI)
Ischemic Heart Disease	0073	Ischemic Vascular Disease (IVD): Blood Pressure Management Control
Ischemic Heart Disease	0074	Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol (PQRS #197)
Ischemic Heart Disease	0075	Ischemic Vascular Disease (IVD): Low Density Lipoprotein (LDL-C) Control
Ischemic Heart Disease	0076	Optimal Vascular Care
Ischemic Heart Disease	0133	PCI Mortality (Risk-Adjusted)©
Ischemic Heart Disease	0237	Anti-Platelet Medication on Discharge
Ischemic Heart Disease	0355	Bilateral Cardiac Catheterization Rate (IQI 25)
Ischemic Heart Disease	0543	Adherence to Statin Therapy for Individuals with Coronary Artery Disease
Ischemic Heart Disease	0569	Adherence to Statins
Ischemic Heart Disease	0578	Ambulatory Initiated Amiodarone Therapy: TSH Test
Ischemic Heart Disease	0611	Hyperlipidemia (Primary Prevention) - Lifestyle Changes and/or Lipid Lowering Therapy
Ischemic Heart Disease	0616	Atherosclerotic Disease - Lipid Panel Monitoring
Ischemic Heart Disease	0631	Secondary Prevention of Cardiovascular Events - Use of Aspirin or Antiplatelet Therapy
Ischemic Heart Disease	0632	Primary Prevention of Cardiovascular Events in Diabetics Use of Aspirin or Antiplatelet Therapy
Ischemic Heart Disease	0636	Atherosclerotic Disease and LDL Greater Than 100 - Use of Lipid Lowering Agent
Ischemic Heart Disease	0669	OP-13: Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac Low-Risk Surgery
Ischemic Heart Disease	0670	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Preoperative Evaluation in Low Risk Surgery

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
		Patients
Ischemic Heart Disease	0671	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)
Ischemic Heart Disease	0672	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Testing in Asymptomatic, Low Risk Patients
Ischemic Heart Disease	1558	Relative Resource Use for People with Cardiovascular Conditions
Diabetes	0003	Bipolar Disorder: Assessment for Diabetes
Diabetes	0055	Diabetes: Eye Exam
Diabetes	0056	Diabetes: Foot Exam
Diabetes	0057	Diabetes: Hemoglobin A1c Testing
Diabetes	0059	Diabetes: Hemoglobin A1c Poor Control (>9.0%)
Diabetes	0061	Diabetes: Blood Pressure Management
Diabetes	0062	Diabetes: Urine Protein Screening
Diabetes	0063	Diabetes: Lipid Profile
Diabetes	0064	Diabetes Measure Pair: a. Lipid Management: Low Density Lipoprotein Cholesterol (LDL-C) <130, b. Lipid Management: LDL-C <100
Diabetes	0066	Chronic Stable Coronary Artery Disease: ACE Inhibitor or ARB Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)
Diabetes	0088	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy
Diabetes	0089	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care
Diabetes	0272	Diabetes Short-Term Complications Admission Rate (PQI 1)
Diabetes	0274	Diabetes Long-Term Complications Admission Rate (PQI 3)

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Diabetes	0285	Rate of Lower-Extremity Amputation Among Patients with Diabetes (PQI 16)
Diabetes	0416	Diabetic Foot & Ankle Care, Ulcer Prevention Evaluation of Footwear
Diabetes	0417	Diabetic Foot & Ankle Care, Peripheral Neuropathy Neurological Evaluation
Diabetes	0519	Diabetic Foot Care and Patient Education Implemented
Diabetes	0545	Adherence to Chronic Medications for Individuals with Diabetes Mellitus
Diabetes	0546	Diabetes: Appropriate Treatment of Hypertension
Diabetes	0575	Comprehensive Diabetes Care: HbA1c Control (<8.0%)
Diabetes	0603	Adult(s) Taking Insulin with Evidence of Self-Monitoring Blood Glucose Testing
Diabetes	0604	Adult(s) with Diabetes Mellitus That Had a Serum Creatinine in Last 12 Reported Months
Diabetes	0618	Diabetes with LDL Greater Than 100 - Use of a Lipid Lowering Agent
Diabetes	0619	Diabetes with Hypertension or Proteinuria - Use of an ACE Inhibitor or ARB
Diabetes	0630	Diabetes and Elevated HbA1C - Use of Diabetes Medications
Diabetes	0632	Primary Prevention of Cardiovascular Events in Diabetics Use of Aspirin or Antiplatelet Therapy
Diabetes	0638	Uncontrolled Diabetes Admission Rate (PQI 14)
Diabetes	0729	Optimal Diabetes Care
Diabetes	0731	Comprehensive Diabetes Care
Diabetes	1557	Relative Resource Use for People with Diabetes (RDI)
Stroke/Transient Ischemic Attack	0240	Stroke and Stroke Rehabilitation: Deep Vein Thrombosis Prophylaxis (DVT) for Ischemic Stroke or Intracranial Hemorrhage (PQRS #31)

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Stroke/Transient Ischemic Attack	0241	Stroke and Stroke Rehabilitation: Anticoagulant Therapy Prescribed for Atrial Fibrillation At Discharge (PQRS #33)
Stroke/Transient Ischemic Attack	0242*	Tissue Plasminogen Activator (t-PA) Considered
Stroke/Transient Ischemic Attack	0243	Stroke and Stroke Rehabilitation: Screening for Dysphagia (PQRS #35)
Stroke/Transient Ischemic Attack	0244	Stroke and Stroke Rehabilitation: Consideration of Rehabilitation Services (PQRS #36)
Stroke/Transient Ischemic Attack	0325	Stroke and Stroke Rehabilitation: Discharges on Antiplatelet Therapy (PQRS #32)
Stroke/Transient Ischemic Attack	0434	Venous Thromboembolism Prophylaxis
Stroke/Transient Ischemic Attack	0435	Stroke-2 Ischemic Stroke - Discharge on Anti-Thrombotics
Stroke/Transient Ischemic Attack	0436	Stroke-3 Ischemic Stroke - Anticoagulation for A-Fib/Flutter
Stroke/Transient Ischemic Attack	0437	Stroke and Stroke Rehabilitation: Thrombolytic Therapy (PQRS #187)
Stroke/Transient Ischemic Attack	0438	Stroke-5 Ischemic - Antithrombotic Therapy By Day 2
Stroke/Transient Ischemic Attack	0439	Stroke-6 Ischemic Stroke - Discharge on Statins
Stroke/Transient Ischemic Attack	0440*	Stroke-8 Ischemic or Hemorrhagic Stroke - Stroke Education
Stroke/Transient Ischemic Attack	0441	Stroke-10 Ischemic or Hemorrhagic Stroke - Rehabilitation Assessment
Stroke/Transient Ischemic Attack	0442*	Functional Communication Measure - Writing (PQRS #215)
Stroke/Transient Ischemic Attack	0443*	Functional Communication Measure - Swallowing (PQRS #216)
Stroke/Transient	0444*	Functional Communication Measure - Spoken Language

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Ischemic Attack		Expression (PQRS #214)
Stroke/Transient Ischemic Attack	0445*	Functional Communication Measure - Spoken Language Comprehension (PQRS #209)
Stroke/Transient Ischemic Attack	0446*	Functional Communication Measure - Reading (PQRS #213)
Stroke/Transient Ischemic Attack	0447*	Functional Communication Measure - Motor Speech (PQRS #212)
Stroke/Transient Ischemic Attack	0448*	Functional Communication Measure - Memory (PQRS #211)
Stroke/Transient Ischemic Attack	0449*	Functional Communication Measure - Attention (PQRS #210)
Stroke/Transient Ischemic Attack	0467	Acute Stroke Mortality Rate (IQI 17)
Stroke/Transient Ischemic Attack	0644*	Patients with a Transient Ischemic Event ER Visit That Had a Follow Up Office Visit
Stroke/Transient Ischemic Attack	0661	OP-23: ED-Head CT Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Who Received Head CT Scan Interpretation Within 45 Minutes of Arrival
Stroke/Transient Ischemic Attack	0705	Proportion of Patients Hospitalized with Stroke That Have a Potentially Avoidable Complication (During the Index Stay or in the 30-Day Post-Discharge Period)
Stroke/Transient Ischemic Attack	1540	Postoperative Stroke or Death in Asymptomatic Patients Undergoing Carotid Endarterectomy
Stroke/Transient Ischemic Attack	1543	Postoperative Stroke or Death in Asymptomatic Patients Undergoing Carotid Artery Stenting (CAS)
Stroke/Transient Ischemic Attack	1952	Time to Intravenous Thrombolytic Therapy
Breast Cancer	0219	Post Breast Conservation Surgery Irradiation
Breast Cancer	0220	Adjuvant Hormonal Therapy
Breast Cancer	0221	Needle Biopsy to Establish Diagnosis of Cancer Precedes Surgical Excision/Resection

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Breast Cancer	0381	Oncology: Treatment Summary Communication Radiation Oncology
Breast Cancer	0383	Oncology: Medical and Radiation - Plan of Care for Pain (PQRS #144)
Breast Cancer	0386	Oncology: Cancer Stage Documented (PQRS #194)
Breast Cancer	0387	Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer
Breast Cancer	0391	Breast Cancer Resection Pathology Reporting: PT Category (Primary Tumor) and pN Category (Regional Lymph Nodes) with Histologic Grade (PQRS #99)
Breast Cancer	0508	Radiology: Inappropriate Use of "Probably Benign" Assessment Category in Mammography Screening (PQRS #146)
Breast Cancer	0509	Reminder System for Mammograms
Breast Cancer	0559	Combination Chemotherapy Is Considered or Administered Within 4 Months (120 Days) of Diagnosis for Women Under 70 with AJCC T1c, or Stage II or III Hormone Receptor Negative Breast Cancer
Breast Cancer	1855	Quantitative HER2 Evaluation By IHC Uses the System Recommended By the ASCO/CAP Guidelines
Breast Cancer	1857	Patients with Breast Cancer and Negative or Undocumented Human Epidermal Growth Factor Receptor 2 (HER2) Status Who Are Spared Treatment with Trastuzumab
Breast Cancer	1858	Trastuzumab Administered to Patients with AJCC Stage I (T1c) – III and Human Epidermal Growth Factor Receptor 2 (HER2) Positive Breast Cancer Who Receive Adjuvant Chemotherapy
Breast Cancer	1878	Human Epidermal Growth Factor Receptor 2 (HER2) Testing in Breast Cancer
Chronic Obstructive Pulmonary Disease	0091	Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation (PQRS #51)
Chronic Obstructive	0102	Chronic Obstructive Pulmonary Disease (COPD):

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Pulmonary Disease		Bronchodilator Therapy
Chronic Obstructive Pulmonary Disease	0275	Chronic Obstructive Pulmonary Disease (PQI 5)
Chronic Obstructive Pulmonary Disease	0577	Use of Spirometry Testing in the Assessment and Diagnosis of COPD
Chronic Obstructive Pulmonary Disease	0700	Health-Related Quality of Life in COPD Patients Before and After Pulmonary Rehabilitation
Chronic Obstructive Pulmonary Disease	0701	Functional Capacity in COPD Patients Before and After Pulmonary Rehabilitation
Chronic Obstructive Pulmonary Disease	1561	Relative Resource Use for People with COPD
Chronic Obstructive Pulmonary Disease	1825	COPD - Management of Poorly Controlled COPD
Acute Myocardial Infarction	0070	Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI)
Acute Myocardial Infarction	0071	Acute Myocardial Infarction (AMI): Persistence of Beta-Blocker Treatment After a Heart Attack
Acute Myocardial Infarction	0074	Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol (PQRS #197)
Acute Myocardial Infarction	0092	Aspirin At Arrival for Acute Myocardial Infarction (AMI) (PQRS #28)
Acute Myocardial Infarction	0132	Aspirin At Arrival for Acute Myocardial Infarction (AMI)
Acute Myocardial Infarction	0137	ACEI or ARB for Left Ventricular Systolic Dysfunction- Acute Myocardial Infarction (AMI) Patients
Acute Myocardial Infarction	0142	AMI-2-Aspirin Prescribed At Discharge for AMI
Acute Myocardial Infarction	0160	Beta-Blocker Prescribed At Discharge for AMI
Acute Myocardial Infarction	0163	AMI-8a-Primary Percutaneous Coronary Intervention (PCI) Within 90 Minutes of Hospital Arrival

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Acute Myocardial Infarction	0164	AMI-7a-Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival
Acute Myocardial Infarction	0230	Acute Myocardial Infarction 30-Day Mortality Rate
Acute Myocardial Infarction	0286	OP-4: AMI Aspirin At Arrival
Acute Myocardial Infarction	0287	OP-1 AMI Median Time to Fibrinolysis
Acute Myocardial Infarction	0288	OP-2: AMI Emergency Department Acute Myocardial Infarction (AMI) Patients with ST-Segment Elevation or LBBB on the ECG Closest to Arrival Time Receiving Fibrinolytic Therapy During the Stay and Having a Time from ED Arrival to Fibrinolysis of 30 Minutes or Less
Acute Myocardial Infarction	0289	OP-5: Median Time to ECG
Acute Myocardial Infarction	0290	OP-3: AMI Median Time to Transfer to Another Facility for Acute Coronary Intervention
Acute Myocardial Infarction	0505	Acute Myocardial Infarction 30-Day Risk Standardized Readmission Measure
Acute Myocardial Infarction	0535	30-Day All-Cause Risk-Standardized Mortality Rate Following Percutaneous Coronary Intervention (PCI) for Patients Without ST Segment Elevation Myocardial Infarction (STEMI) and Without Cardiogenic Shock
Acute Myocardial Infarction	0536	30-Day All-Cause Risk-Standardized Mortality Rate Following Percutaneous Coronary Intervention (PCI) for Patients with ST Segment Elevation Myocardial Infarction (STEMI) or Cardiogenic Shock
Acute Myocardial Infarction	0594	Post MI: ACE Inhibitor or ARB Therapy
Acute Myocardial Infarction	0613	MI - Use of Beta Blocker Therapy
Acute Myocardial Infarction	0639	AMI-10 Discharged on Statin Medication

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Acute Myocardial Infarction	0642	Cardiac Rehabilitation Patient Referral from an Inpatient Setting
Acute Myocardial Infarction	0643	OP-24: Cardiac Rehabilitation Patient Referral from an Outpatient Setting
Acute Myocardial Infarction	0660*	OP-16: Troponin Results for Emergency Department Acute Myocardial Infarction (AMI) Patients or Chest Pain Patients (with Probable Cardiac Chest Pain) Received Within 60 Minutes of Arrival
Acute Myocardial Infarction	0665	Patient(s) with an Emergency Medicine Visit for Non-Traumatic Chest Pain That Had an ECG
Acute Myocardial Infarction	0698	30-Day Post-Hospital AMI Discharge Care Transition Composite Measure
Acute Myocardial Infarction	0704	Proportion of Patients Hospitalized with AMI That Have a Potentially Avoidable Complication (During the Index Stay or in the 30-Day Post-Discharge Period)
Acute Myocardial Infarction	0730	Acute Myocardial Infarction (AMI) Mortality Rate
Acute Myocardial Infarction	1528	Beta Blocker At Discharge for ICD Implant Patients with a Previous MI
Colorectal Cancer	0034	Preventive Care and Screening: Colorectal Cancer Screening
Colorectal Cancer	0223	Adjuvant Chemotherapy Is Considered or Administered Within 4 Months (120 Days) of Surgery to Patients Under the Age of 80 with AJCC III (Lymph Node Positive) Colon Cancer
Colorectal Cancer	0225	At Least 12 Regional Lymph Nodes Are Removed and Pathologically Examined for Resected Colon Cancer
Colorectal Cancer	0383	Oncology: Medical and Radiation - Plan of Care for Pain (PQRS #144)
Colorectal Cancer	0385	Colon Cancer: Chemotherapy for Stage III Colon Cancer Patients
Colorectal Cancer	0386	Oncology: Cancer Stage Documented (PQRS #194)
Colorectal Cancer	0392	Colorectal Cancer Resection Pathology Reporting: PT Category (Primary Tumor) and pN Category (Regional Lymph

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
		Nodes) with Histologic Grade (PQRS #100)
Colorectal Cancer	0658	Endoscopy/Poly Surveillance: Appropriate Follow-Up Interval for Normal Colonoscopy in Average Risk Patients
Colorectal Cancer	0706	Risk Adjusted Colon Surgery Outcome Measure
Colorectal Cancer	1859	KRAS Gene Mutation Testing Performed for Patients with Metastatic Colorectal Cancer Who Receive Anti-Epidermal Growth Factor Receptor Monoclonal Antibody Therapy
Colorectal Cancer	1860	Patients with Metastatic Colorectal Cancer and KRAS Gene Mutation Spared Treatment with Anti-Epidermal Growth Factor Receptor Monoclonal Antibodies
Hip/Pelvic Fracture	0045	Osteoporosis: C422Communication with the Physician Managing on-Going Care Post-Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and Older (PQRS #24)
Hip/Pelvic Fracture	0048	Osteoporosis: Management Following Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and Older (PQRS #40)
Hip/Pelvic Fracture	0053	Osteoporosis Management in Women Who Had a Fracture
Hip/Pelvic Fracture	0354	Hip Fracture Mortality Rate (IQI 19)
Hip/Pelvic Fracture	0423	Functional Status Change for Patients with Hip Impairments
Hip/Pelvic Fracture	0662	OP-21: ED-Median Time to Pain Management for Long Bone Fracture
Chronic Renal Disease	0226	Influenza Immunization in the ESRD Population (Facility Level)
Chronic Renal Disease	0227	Influenza Immunization
Chronic Renal Disease	0249	Hemodialysis Adequacy Clinical Performance Measure III: Hemodialysis Adequacy - HD Adequacy - Minimum Delivered Hemodialysis Dose
Chronic Renal Disease	0251	Vascular Access-Functional Arteriovenous Fistula or AV Graft or Evaluation for Placement
Chronic Renal Disease	0255	Measurement of Serum Phosphorus Concentration

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Chronic Renal Disease	0256	Hemodialysis Vascular Access - Minimizing Use of Catheters As Chronic Dialysis Access
Chronic Renal Disease	0257	Hemodialysis Vascular Access - Maximizing Placement of Arterial Venous Fistula (AVF)
Chronic Renal Disease	0258	In-Center Hemodialysis Consumer Assessment of Healthcare Providers and Systems (ICH CAHPS) Survey Reporting
Chronic Renal Disease	0260	Assessment of Health-Related Quality of Life (Physical & Mental Functioning)
Chronic Renal Disease	0318	Peritoneal Dialysis Adequacy Clinical Performance Measure III - Delivered Dose of Peritoneal Dialysis Above Minimum
Chronic Renal Disease	0321	End Stage Renal Disease (ESRD): Plan of Care for Inadequate Peritoneal Dialysis (PQRS #82)
Chronic Renal Disease	0323	End Stage Renal Disease (ESRD): Plan of Care for Inadequate Hemodialysis in ESRD Patients (PQRS #81)
Chronic Renal Disease	0369	Dialysis Facility Risk-Adjusted Standardized Mortality Ratio
Chronic Renal Disease	0370	Monitoring Hemoglobin Levels Below Target Minimum
Chronic Renal Disease	1418	Frequency of Adequacy Measurement for Pediatric Hemodialysis Patients
Chronic Renal Disease	1421	Method of Adequacy Measurement for Pediatric Hemodialysis Patients
Chronic Renal Disease	1423	Minimum spKt/V for Pediatric Hemodialysis Patients
Chronic Renal Disease	1424	Monthly Hemoglobin Measurement for Pediatric Patients
Chronic Renal Disease	1425	Measurement of nPCR for Pediatric Hemodialysis Patients
Chronic Renal Disease	1433	Use of Iron Therapy for Pediatric Patients
Chronic Renal Disease	1438	Periodic Assessment of Post-Dialysis Weight By Nephrologists
Chronic Renal Disease	1454	Proportion of Patients with Hypercalcemia
Chronic Renal Disease	1460	Bloodstream Infection in Hemodialysis Outpatients

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Chronic Renal Disease	1463	Standardized Hospitalization Ratio for Admissions
Chronic Renal Disease	1666	Patients on Erythropoiesis Stimulating Agent (ESA) - Hemoglobin Level > 12.0 g/dL
Chronic Renal Disease	1667	Pediatric ESRD Patients Receiving Dialysis: Hemoglobin Level < 10g/dL
Chronic Renal Disease	1668	Laboratory Testing (Lipid Profile)
Prostate Cancer	0381	Oncology: Treatment Summary Communication Radiation Oncology
Prostate Cancer	0383	Oncology: Medical and Radiation - Plan of Care for Pain (PQRS #144)
Prostate Cancer	0389	Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low-Risk Prostate Cancer Patients
Prostate Cancer	0390	Prostate Cancer: Adjuvant Hormonal Therapy for High-Risk Prostate Cancer Patients (PQRS #104)
Prostate Cancer	1853	Radical Prostatectomy Pathology Reporting
Rheumatoid Arthritis/Osteoarthritis	0050	Osteoarthritis (OA): Function and Pain Assessment (PQRS #109)
Rheumatoid Arthritis/Osteoarthritis	0051	Osteoarthritis (OA): Assessment for Use of Anti-Inflammatory or Analgesic Over-the-Counter (OTC) Medications (PQRS #142)
Rheumatoid Arthritis/Osteoarthritis	0054	Rheumatoid Arthritis Disease Modifying Anti-Rheumatic Drug Therapy (PQRS #108)
Rheumatoid Arthritis/Osteoarthritis	0422	Functional Status Change for Patients with Knee Impairments
Rheumatoid Arthritis/Osteoarthritis	0423	Functional Status Change for Patients with Hip Impairments
Rheumatoid Arthritis/Osteoarthritis	0424	Functional Status Change for Patients with Foot/Ankle Impairments
Rheumatoid Arthritis/Osteoarthritis	0425	Functional Status Change for Patients with Lumbar Spine Impairments

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Rheumatoid Arthritis/Osteoarthritis	0426	Functional Status Change for Patients with Shoulder Impairments
Rheumatoid Arthritis/Osteoarthritis	0427	Functional Status Change for Patients with Elbow, Wrist or Hand Impairments
Rheumatoid Arthritis/Osteoarthritis	0428	Functional Status Change for Patients with General Orthopedic Impairments
Rheumatoid Arthritis/Osteoarthritis	0585	Hydroxychloroquine Annual Eye Exam
Rheumatoid Arthritis/Osteoarthritis	0589	Rheumatoid Arthritis New DMARD Baseline Serum Creatinine
Rheumatoid Arthritis/Osteoarthritis	0590	Rheumatoid Arthritis New DMARD Baseline Liver Function Test
Rheumatoid Arthritis/Osteoarthritis	0591	Rheumatoid Arthritis New DMARD Baseline CBC
Rheumatoid Arthritis/Osteoarthritis	0592	Rheumatoid Arthritis Annual ESR or CRP
Rheumatoid Arthritis/Osteoarthritis	0597	Methotrexate: LFT Within 12 Weeks
Rheumatoid Arthritis/Osteoarthritis	0598	Methotrexate: CBC Within 12 Weeks
Rheumatoid Arthritis/Osteoarthritis	0599	Methotrexate: Creatinine Within 12 Weeks
Rheumatoid Arthritis/Osteoarthritis	0601	New Rheumatoid Arthritis Baseline ESR or CRP Within Three Months
Atrial Fibrillation	0600	New Atrial Fibrillation: Thyroid Function Test
Atrial Fibrillation	0624	Atrial Fibrillation - Warfarin Therapy
Atrial Fibrillation	1524	Assessment of Thromboembolic Risk Factors (CHADS2)
Atrial Fibrillation	1525	Chronic Anticoagulation Therapy
Lung Cancer	0382	Oncology: Radiation Dose Limits to Normal Tissues (PQRS #156)

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
Lung Cancer	0383	Oncology: Medical and Radiation - Plan of Care for Pain (PQRS #144)
Lung Cancer	0455	Thoracic Surgery: Recording of Clinical Stage for Lung Cancer and Esophageal Cancer Resection (PQRS #157)
Lung Cancer	0457	Thoracic Surgery: Recording of Performance Status Prior to Lung or Esophageal Cancer Resection (PQRS #233)
Lung Cancer	0458	Thoracic Surgery: Pulmonary Function Tests Before Major Anatomic Lung Resection (Pneumonectomy, Lobectomy, or Formal Segmentectomy) (PQRS #234)
Lung Cancer	0459	Risk-Adjusted Morbidity: Length of Stay >14 Days After Elective Lobectomy for Lung Cancer
Lung Cancer	1790	Risk-Adjusted Morbidity and Mortality for Lung Resection for Lung Cancer
Cataract	0564	Cataracts: Complications Within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures
Cataract	0565	Cataracts: 20/40 or Better Visual Acuity Within 90 Days Following Cataract Surgery
Cataract	1536	Cataracts: Improvement in Patient's Visual Function Within 90 Days Following Cataract Surgery
Glaucoma	0086	Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation
Glaucoma	0563	Primary Open-Angle Glaucoma (POAG): Reduction of Intraocular Pressure (IOP) By 15% OR Documentation of Plan of Care (PQRS #141)
Osteoporosis	0037	Osteoporosis Testing in Older Women
Osteoporosis	0045	Osteoporosis: C422 Communication with the Physician Managing on-Going Care Post-Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and Older (PQRS #24)
Osteoporosis	0046	Screening or Therapy for Osteoporosis for Women Aged 65 Years and Older (PQRS #39)
Osteoporosis	0048	Osteoporosis: Management Following Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and

High-Impact Medicare Condition	NQF Measure Number	NQF Measure Title
		Older (PQRS #40)
Osteoporosis	0049	Osteoporosis: Pharmacologic Therapy for Men and Women Aged 50 Years and Older (PQRS #41)
Osteoporosis	0053	Osteoporosis Management in Women Who Had a Fracture
Osteoporosis	0614	Steroid Use - Osteoporosis Screening
Osteoporosis	0633	Osteopenia and Chronic Steroid Use - Treatment to Prevent Osteoporosis
Osteoporosis	0634	Osteoporosis - Use of Pharmacological Treatment
Endometrial Cancer	0567	Appropriate Work Up Prior to Endometrial Ablation Procedure

**Denotes measures that are no longer NQF-endorsed as of the release date of this report.*

Appendix E: NQF-Endorsed High-impact Child Health Condition Measures

High-Impact Child Health Condition	NQF Measure Number	NQF Measure Title
Tobacco Use	1346	Children Who Are Exposed to Secondhand Smoke Inside Home
Tobacco Use	1406	Risky Behavior Assessment or Counseling By Age 13 Years
Tobacco Use	1507	Risky Behavior Assessment or Counseling By Age 18 Years
Overweight/Obese	0024	Weight Assessment and Counseling for Children and Adolescents
Overweight/Obese	1349	Child Overweight or Obesity Status Based on Parental Report of Body-Mass-Index (BMI)
Overweight/Obese	1396	Healthy Physical Development By 6 Years of Age
Overweight/Obese	1512	Healthy Physical Development By 13 Years of Age
Overweight/Obese	1514	Healthy Physical Development By 18 Years of Age
Risk of Developmental Delay or Behavioral Problems	0011	Promoting Healthy Development Survey (PHDS)
Risk of Developmental Delay or Behavioral Problems	0722	Pediatric Symptom Checklist (PSC)
Risk of Developmental Delay or Behavioral Problems	1385	Developmental Screening Using a Parent Completed Screening Tool (Parent Report, Children 0-5)
Risk of Developmental Delay or Behavioral Problems	1399	Developmental Screening By 2 Years of Age
Risk of Developmental Delay or Behavioral Problems	1448	Developmental Screening in the First Three Years of Life
Oral Health	1334	Children Who Received Preventive Dental Care
Oral Health	1335	Children Who Have Dental Decay or Cavities

High-Impact Child Health Condition	NQF Measure Number	NQF Measure Title
Oral Health	1388	Annual Dental Visit
Oral Health	1419	Primary Caries Prevention Intervention As Part of Well/Ill Child Care As Offered By Primary Care Medical Providers
Diabetes	0060	Diabetes: Hemoglobin A1c Test for Pediatric Patients
Asthma	0036	Use of Appropriate Medications for Asthma (PQRS #311)
Asthma	0047	Asthma: Pharmacologic Therapy
Asthma	0143	CAC-1: Relievers for Inpatient Asthma
Asthma	0144	CAC-2 Systemic Corticosteroids for Inpatient Asthma
Asthma	0548	Suboptimal Asthma Control (SAC) and Absence of Controller Therapy (ACT)
Asthma	1381	Asthma Emergency Department Visits
Asthma	1560	Relative Resource Use for People with Asthma
Asthma	1799	Medication Management for People with Asthma (MMA)
Asthma	1800	Asthma Medication Ratio (AMR)
Depression	0576	Follow-Up After Hospitalization for Mental Illness
Depression	1364	Child and Adolescent Major Depressive Disorder: Diagnostic Evaluation
Depression	1365	Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment
Depression	1394	Depression Screening By 13 Years of Age
Depression	1401	Maternal Depression Screening
Depression	1448	Developmental Screening in the First Three Years of Life
Depression	1515	Depression Screening By 18 Years of Age
Attention Deficit Disorder/Attention Hyperactivity Disorder	0106	Diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) in Primary Care for School Age Children and Adolescents

High-Impact Child Health Condition	NQF Measure Number	NQF Measure Title
Attention Deficit Disorder/Attention Hyperactivity Disorder	0107	Management of Attention Deficit Hyperactivity Disorder (ADHD) in Primary Care for School Age Children and Adolescents
Attention Deficit Disorder/Attention Hyperactivity Disorder	0108	Follow-Up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication
Vision Problems	1412	Pre-School Vision Screening in the Medical Home
Bone, Joint or Muscle Problems	0662	ED-Median Time to Pain Management for Long Bone Fracture
Hearing Problems	0587	Tympanostomy Tube Hearing Test
Hearing Problems	0653	Acute Otitis Externa (AOE): Topical Therapy (PQRS #91)
Hearing Problems	0654	Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy - Avoidance of Inappropriate Use (PQRS #93)
Hearing Problems	0655	Otitis Media with Effusion: Antihistamines or Decongestants – Avoidance of Inappropriate Use
Hearing Problems	0656	Otitis Media with Effusion: Systemic Corticosteroids - Avoidance of Inappropriate Use
Hearing Problems	0657	Otitis Media with Effusion: Systemic Antimicrobials - Avoidance of Inappropriate Use
Hearing Problems	0663	Patient(s) 2 Years of Age and Older with Acute Otitis Externa Who Were NOT Prescribed Systemic Antimicrobial Therapy
Hearing Problems	1354	Hearing Screening Prior to Hospital Discharge (EHDI-1a)
Hearing Problems	1357	Outpatient Hearing Screening of Infants Who Did Not Complete Screening Before Hospital Discharge (EHDI-1c)
Hearing Problems	1360	Audiological Evaluation No Later Than 3 Months of Age (EHDI-3)
Hearing Problems	1361	Intervention No Later Than 6 Months of Age
Hearing Problems	1402	Newborn Hearing Screening

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