NATIONAL QUALITY FORUM

Measure Applications Partnership

# MAP 2018: Recommendations for a Core Set of Rural-Relevant Measures for Hospitals and Selected Ambulatory Care Settings and Measuring and Improving Access to Care

*DRAFT REPORT*

*May 31, 2018*

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## Contents

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DRAFT REPORT 2 OF THE MAP RURAL HEALTH WORKGROUP

## Executive Summary

More than 59 million Americans—approximately 19 percent of the U.S. population—live in rural areas.[1] Statistics indicate that those living in rural areas in the U.S. are more disadvantaged, collectively, than those in urban or suburban areas, particularly with respect to sociodemographic factors, health status and behaviors, and access to the healthcare delivery system. For example, rural Americans are more likely to be older; engage in poor health behaviors such as smoking; have higher mortality rates for heart disease, cancer, and stroke; and have higher rates of social disadvantages, such as low income, high unemployment, and lower educational attainment.[1,2,3,4] Rural Americans also are more likely to experience difficulties accessing primary, emergency, dental, and mental healthcare.[5,6,7]

NQF convenes the statutorily-mandated Measure Applications Partnership (MAP) as a public-private partnership of healthcare stakeholders (Appendix A). MAP provides input to the Department of Health and Human Services (HHS) on the selection of performance measures for public reporting and performance-based payment programs. MAP also helps to identify gaps in measure development and encourages measure alignment across public and private programs, settings, levels of analysis, and populations.

In 2017, recognizing the lack of representation from rural stakeholders in the pre-rulemaking process, CMS tasked the National Quality Forum (NQF) to establish a MAP Rural Health Workgroup (Appendix B). This 25-member, multistakeholder group advises the MAP Coordinating Committee. Because Workgroup members reflect the diversity of rural providers and residents, it includes the perspectives of those most affected and those most knowledgeable about rural measurement challenges and potential solutions. Input from such rural experts will allow the setting-specific MAP Workgroups and Coordinating Committee to consider measurement challenges that rural providers face, including the limitations of current or proposed measures.

During its first year, the MAP Rural Health Workgroup focused on two primary tasks: (1) identifying core sets of the best available rural-relevant measures to address the needs of the rural population and (2) providing recommendations from a rural perspective regarding measuring and improving access to care. In conjunction with these tasks, the Workgroup also identified and prioritized rural-relevant gaps in measurement and provided input on alignment and coordination of measurement efforts.

To identify a core set of rural-relevant measures, the MAP Rural Health Workgroup identified several criteria to narrow the list of potentially appropriate measures. Specifically, the Workgroup agreed that measures in the core set should be NQF-endorsed, cross-cutting, resistant to low case-volume, and

address transitions in care. The Workgroup also agreed on the potential inclusion of measures that address mental health, substance abuse, medication reconciliation, diabetes, hypertension, chronic obstructive pulmonary disease, hospital readmissions, perinatal conditions, and the pediatric population.

The Workgroup identified measures for the draft core set through a quantitative process that scored measures based on their adherence to the selection criteria, along with iterative qualitative evaluations and consensus-building discussions on individual measures. The 21 measures in the draft core set can be used for hospitals and ambulatory settings such as hospital outpatient departments and clinician offices or clinics (see Tables 1 and 2). The measures in these sets are suitable for use in CMS' hospital inpatient and outpatient quality reporting programs and its clinician-focused quality reporting programs. The Workgroup also identified an additional six measures that address highly relevant aspects of care in the ambulatory setting for rural providers and communities but are specified and endorsed to assess quality of care provided by health plans and integrated delivery systems rather than care provided by hospitals or clinicians (see Table 3).

As the Workgroup worked to identify core set measures and gaps in measurement, it became apparent that access to care is a key issue for rural residents. Thus, when offered a choice of measurement topics, the Workgroup overwhelmingly chose access to care. The Workgroup focused its efforts on identifying those aspects of access that are particularly relevant to rural residents (i.e., availability, accessibility, and affordability), documenting, where appropriate, key challenges to access-to-care measurement from the rural perspective, and identifying ways to address those challenges.

This report describes the selection criteria and processes used to generate the draft core set of measures, documents the draft core set of measures and the rationale for inclusion, describes the measurement gap areas identified by the Workgroup, and presents the Workgroup's recommendations on access to care from a rural perspective.

NQF will post this report for a 30-day public commenting period on June 1, 2018. Following the commenting period, the Workgroup will convene in July 2018 to review public comments and finalize its recommendations. In August 2018 NQF will release a final report.

## Introduction and Purpose

The Measure Applications Partnership (MAP) is a public-private partnership convened by the National Quality Forum (NQF). MAP was created under the statutory authority of the Affordable Care Act (ACA) to provide input to the U.S. Department of Health and Human Services (HHS) on the selection of performance measures for public reporting, performance-based payment, and other programs. MAP also helps to identify gaps in measure development and encourages measure alignment across public and private programs, settings, levels of analysis, and populations. Appendix A provides additional information about MAP.

In 2017, recognizing the lack of representation from rural stakeholders in the pre-rulemaking process, the Centers for Medicare and Medicaid Services (CMS) tasked NQF to establish a MAP Rural Health Workgroup (Appendix B). This Workgroup, comprised of 18 organizational members, seven subject matter experts, and three federal liaisons, advises the MAP Coordinating Committee. Because Workgroup members reflect the diversity of rural providers and residents, it includes the perspectives of those most affected and those most knowledgeable about rural measurement challenges and potential solutions. Input from such rural experts will allow the setting-specific MAP Workgroups and Coordinating Committee to consider measurement challenges that rural providers face, including the limitations of current or proposed measures.

During its first year, the MAP Rural Health Workgroup focused on two primary tasks: (1) identifying a core set of the best available rural-relevant measures to address the needs of the rural population and (2) providing, from a rural perspective, recommendations on measuring and improving access to care. In conjunction with these tasks, the Workgroup also identified and prioritized rural-relevant gaps in measurement and provided input on alignment and coordination of measurement efforts.

The first task addressed two recommendations of an HHS-funded multistakeholder Rural Health Committee that was convened in 2015 by NQF to explore the measurement challenges facing rural providers.[8] That Committee recognized the need for CMS to employ a rural-relevant lens when selecting measures for its quality reporting and payment programs. Accordingly, the Committee developed an initial set of guiding principles for the selection of rural-relevant measures and recommended the use of a core set of measures that would allow reliable and valid comparison of performance across most rural (and nonrural) providers. As part of its recommendation for use of a core set of measures, the Committee provided specific guidance for the number and types of measures that would be appropriate for a core set. Using these recommendations as a starting point, the MAP Rural Health Workgroup identified a core set of measures that can be used for hospitals and ambulatory settings such as hospital outpatient departments and clinician offices or clinics. Most of the measures in these sets are suitable for use in CMS' hospital inpatient and outpatient quality reporting programs and its clinician-focused quality reporting programs.

In addition to identifying a core set of measures, the Workgroup was charged with addressing a rural-relevant measurement topic. As the Workgroup worked to identify core-set measures and gaps in measurement, it became apparent that access to care is a key issue for rural residents. Thus, when offered a choice of measurement topics, the Workgroup overwhelmingly chose access to care. Given

the relatively short timeframe for this task, the Workgroup focused its efforts on identifying those facets of access that are particularly relevant to rural residents, documenting key challenges—from the rural perspective—of providing and measuring access to care, and identifying ways to address those challenges.

This report has five major sections. The first section provides context used to inform the Workgroup's efforts. The next section briefly describes the selection criteria and processes used by the Workgroup to generate the draft core set of measures and documents the draft core set of measures and the rationale for their inclusion. The following section describes the measurement gap areas identified by the Workgroup. The next section details the Workgroup's discussion and recommendations on access to care from a rural perspective. The last section describes the upcoming next steps for the MAP Rural Health Workgroup.

Several appendices provide additional details relevant to this work. Appendix A includes more information about MAP. Appendix B lists the MAP Rural Health Workgroup members and NQF staff involved in the project. Appendix C provides a brief summary of NQF's 2015 Rural Health Project. Appendix D discusses more fully NQF's approach and timeline for the work described in this report. Appendix E provides more detail about the process used by the Workgroup to identify measures for the draft core set. Appendix F lists all of the measures that the Workgroup considered in depth for potential inclusion in the draft core set. Appendix G presents how measures in the draft core set align with measures used in selected reporting or payment programs.

## Background and Context

More than 59 million Americans—approximately 19 percent of the U.S. population—live in rural areas.[1] Statistics indicate that those living in rural areas in the U.S. are more disadvantaged, collectively, than those in urban or suburban areas, particularly with respect to sociodemographic factors, health status and behaviors, and access to the healthcare delivery system. For example, rural Americans are more likely to be older; engage in poor health behaviors such as smoking; have higher mortality rates for heart disease, cancer, and stroke, and have higher rates of social disadvantages, such as low income, high unemployment, and lower educational attainment.[1,2,3,4] Rural Americans also are more likely to experience difficulties accessing primary, emergency, dental, and mental healthcare.[5,6,7]

### CMS Initiatives for Rural Health

Rural health and healthcare remain a priority for CMS. To promote a strategic focus on rural health, CMS established an agency-wide Rural Health (RH) Council in 2016.[7] This council focuses on the following three strategic areas:

- Improving access to care for Americans living in rural settings
- Supporting the unique economics of providing healthcare in rural America
- Ensuring that the healthcare innovation agenda fits rural healthcare markets

Additionally, in 2017, CMS launched its Meaningful Measures Initiative. This initiative intends to identify high-priority areas for quality measurement and improvement while also reducing burden on clinicians

and providers.[9] The initiative articulates six cross-cutting criteria that are meant to be applied to six overarching quality categories that encompass 19 "meaningful measure areas." *Improving Access For Rural Communities* is one of the six cross-cutting criteria.

Mostly recently, drawing on input from numerous listening sessions with rural residents, healthcare providers, and other stakeholders, the CMS RH Council released its Rural Health Strategy.[9] The strategy is intended to help CMS in its drive to ensure equitable heath and healthcare for rural America. It has five major objectives:

- Apply a rural lens to CMS programs and policies
- Improve access to care through provider engagement and support
- Advance telehealth and telemedicine
- Empower patients in rural communities to make decisions about their healthcare
- Leverage partnerships to achieve the goals of the CMS Rural Health Strategy

The MAP Rural Health Workgroup accomplishes the first objective of the Rural Health Strategy by identifying a rural-relevant core set of performance measures that are suitable for rural provider participation in CMS public reporting, performance-based payment, and other programs. The Workgroup addresses the other objectives of the strategy through its consideration of access to care.

## Prior NQF Activities Informed the MAP Rural Health Workgroup

Recommendations from three previous NQF efforts—described below—informed the activities of the MAP Rural Health Workgroup.

### *Rural Health Performance Measurement*

Healthcare providers in rural areas face many challenges in reporting quality measurement data and implementing care improvement efforts to address the needs of their populations. In a 2015 HHS-funded project, NQF convened a multistakeholder Rural Health Committee to explore in depth the quality measurement challenges facing rural providers (see Appendix C for additional details).[8] This Committee noted that multiple and disparate demands (e.g., direct patient care, business and operational responsibilities) compete for the time and attention of providers who serve in small rural hospitals, and thus, providers in rural clinical practices—particularly small practices or those in geographically isolated areas—may have limited time, staff, and finances available for quality improvement activities. In addition, some rural areas may lack information technology (IT) capabilities altogether and/or IT professionals who can leverage those capabilities for quality measurement and improvement efforts.

The heterogeneity of residents in many rural areas, such as a disproportionate number of vulnerable residents, has particular implications for healthcare performance measurement. This includes limited applicability of many healthcare performance measures and potentially, the need for modifications in the risk-adjustment approach for certain measures. Moreover, depending on the particular performance measure, rural providers may not have enough patients to achieve reliable and valid measurement

results. While urban areas may experience similar difficulties, in rural areas they likely pose greater challenges for, and have greater impact on, quality measurement and improvement activities.

The NQF Rural Health Committee also noted that some measurement challenges are unique to rural providers. For example, many do not participate in current CMS quality programs or participate—in the case of Critical Access Hospitals (CAHs)—only on a voluntary basis, and thus may have limited experience in collecting data and reporting on healthcare performance measures. Also, claims-based performance measures may not provide valid results for those rural providers who do not rely on claims reimbursements, as these providers may not submit comprehensive data on their claims.

The NQF Rural Health Committee made recommendations to CMS, particularly in the context of pay-for-performance programs and improving quality in rural areas. The Committee's overarching recommendation was to integrate rural healthcare providers into federal quality programs.[10] The Committee noted that rural providers' nonparticipation in federal quality programs may affect the ability of these providers to identify and address opportunities for improvement, as well as demonstrate how they perform compared to their nonrural counterparts.

The Committee's remaining recommendations were intended to ease the transition of rural providers to mandatory participation in CMS quality programs. These recommendations include:

- developing rural-relevant measures (e.g., to address topics such as patient hand-offs and transitions, address the low case-volume challenge, and include appropriate risk adjustment);
- aligning measurement efforts (including measures themselves, data collection efforts, and informational resources);
- considering rural-specific challenges during the measure-selection process;
- creating a rural health workgroup to advise the Measure Applications Partnership (MAP); and
- addressing the design and implementation of pay-for-performance programs.

### *Healthcare Disparities*

With funding from HHS, NQF convened a multistakeholder Committee to provide recommendations on how performance measurement and its associated policy levers can be used to reduce disparities in health and healthcare.[11] Using several conditions as case studies, the Committee created a roadmap to reduce disparities via four actions: prioritizing measures that can help to identify and monitor disparities, implementing evidence-based interventions to reduce disparities, investing in the development and use of measures to assess interventions that reduce disparities, and providing incentives to reduce disparities. In its recommendations for developing and using healthcare performance measures, the Committee developed a Health Equity Framework that identifies five domains for health equity measurement, one of which is assessing equitable access to care. Drawing on previous categorizations of access, the Committee identified four subdomains of access to care: availability, accessibility, affordability, and convenience.

### *Telehealth*

NQF also convened an HHS-funded multistakeholder Committee to recommend various methods to measure the use of telehealth as a means of providing care.[12] More specifically, this Committee

developed a measurement framework that identifies how to assess the quality of care provided via telehealth. The term "telehealth" refers to the use of electronic information and telecommunications technologies to support long-distance clinical healthcare, patient and professional health-related education, public health, and health administration.[8] Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.[8]

Measuring access to telehealth is the first domain in the framework, supported by three subdomains: access for patient, family, and/or caregiver, access for the care team, and access to information. These subdomains are further explained by referencing the affordability, availability, accessibility, accommodation, and acceptability of telehealth. The Committee recommended that five components of access (i.e., affordability, availability, accessibility, accommodation, and acceptability) should be considered across these subdomains.

## Identifying a Core Set of Rural-Relevant Measures

As noted earlier, one of the key tasks of the MAP Rural Health Workgroup was to identify a core set of the best available rural-relevant measures to address the needs of the rural population. The Workgroup focused on identifying measures that are applicable for hospital and ambulatory care settings. While many of the measures identified for the core set generally are suitable for use in CMS hospital inpatient and outpatient quality reporting programs and its clinician-focused quality reporting programs, the Workgroup did not seek to select measures for any particular CMS program.

The Workgroup began the process of identifying a core set of rural-relevant measures by articulating initial criteria for selecting measures. Using a tiered scoring algorithm, NQF staff applied these criteria and other Workgroup preferences to an environmental scan of measures initially developed for the 2015 Rural Health project and updated for this task. After several iterative discussions of the highest-scoring measures, the Workgroup recommended 21 measures for the draft core set.

The sections below describe the Workgroup's measure selection criteria, summarize key steps of the measure selection process, and list the measures currently recommended by the Workgroup for the draft core set. The Workgroup will finalize its recommendations for the core set in July 2018, after taking into account all comments from NQF members and the public. The MAP Coordinating Committee will convene to review and approve the Workgroup's final recommendations in August 2018.

### Measure Selection Criteria

To determine criteria for selecting measures for a draft core set, members first considered the guiding principles for measure selection that were developed in NQF's 2015 Rural Health Project (Appendix C). Drawing on members' experience and expertise, over the course of two webinars, the Workgroup agreed on use of the following measure selection criteria:

- **NQF endorsement**. The Workgroup determined that all measures included in the core set should be NQF-endorsed. Limiting core-set measures to those that are endorsed by NQF addresses several of the 2015 guiding principles for measure selection: Preferred measures are supported by empirical evidence demonstrating clinical effectiveness and a link to desired

health outcomes, demonstrate opportunity for improvement, rely on data that are readily available and/or can be collected without undue burden, and are suitable for use in internal quality improvement efforts, as well as in accountability applications. NQF endorsement is valued because the process itself is both rigorous and transparent; multistakeholder committees conduct the process; many federal reporting and performance-based payment programs are legislatively mandated to use NQF-endorsed measures if available; and various stakeholders in the private sector use NQF measures.

- **Cross-cutting**. Cross-cutting measures are neutral with respect to condition or type of procedure or service. Selection of cross-cutting measures for a core set will help address the challenges of heterogeneity among rural providers and residents, as these measures will apply to most providers and their patients. Also, because cross-cutting measures are not condition- or procedure-specific, low case-volume should be less likely, even for geographically isolated providers or those with small practice sizes. For the purposes of this project, measures that assess preventive screening of broad populations also are considered cross-cutting.
- **Resistant to low case-volume**. Many rural providers, including critical access hospitals, small clinician practices, and those serving in frontier areas, may not have enough patients to achieve reliable and valid results for many measures, particularly those that focus on specific conditions or services. Echoing the 2015 Rural Health Committee's recommendation to explicitly consider low case-volume in the context of mandating participation of rural providers in CMS pay-for-performance programs, the Workgroup emphasized that measures in the core set should apply to most rural providers with respect to having a large enough patient population for reliable and valid measurement.
- **Measures that address transitions in care**. Because many rural providers do not provide specialized care for high-acuity patients, transfers to other care settings and providers are common. Workgroup members agreed that measures assessing the quality and coordination of transitions in care must be included in a core set of rural-relevant measures.

Given the broad scope of care provided by rural clinicians and hospitals, the Workgroup also supported, although to a lesser extent, inclusion of measures that address specific conditions or services that are particularly relevant to rural populations. These include the following:

- **Mental health.** The Workgroup strongly supported inclusion of measures related to mental health. While members agreed that inclusion of measures of access to mental health services would be ideal, they also noted both the importance of screening for mental health issues and its relevance in day-to-day primary care, and they emphasized screening for depression.
- **Substance abuse.** Given the high prevalence of tobacco, alcohol, and other drug use and abuse—including opioids—in many rural areas, the Workgroup agreed that the core set of measures should include measures that address this facet of care.
- **Medication reconciliation.** Medication errors are an important safety concern for all patients, particularly those with multiple comorbidities. Medication reconciliation is a cross-cutting activity that is a core function of good care coordination, and is especially critical when care hand-offs or transitions occur.

- **Diabetes, hypertension, and chronic obstructive pulmonary disease (COPD).** The Workgroup recognized these chronic conditions as highly prevalent in rural areas, requiring high levels of healthcare utilization and contributing to high costs of care for rural residents.
- **Hospital readmissions, and perinatal and pediatric conditions and services.** The Workgroup was somewhat supportive of including readmission measures and measures applicable to perinatal conditions or services and those applicable to children and adolescents. Members acknowledged that readmissions are important outcomes that reflect deteriorating health status that is no longer amendable to outpatient support, but highlighted the need for appropriate risk-adjustment for such measures, as well as the potential for low case-volume.
- Members also recognized the primary care needs of children and women of childbearing age in rural ambulatory settings, but noted the potential for low case-volume and/or nonprovision of services for these groups in rural hospitals.

## Measure Selection Process

The Workgroup's process for identifying the draft core set of measures included a quantitative component along with iterative qualitative evaluations and consensus-building exercises and discussions. NQF staff began the quantitative process for selecting draft core set measures by updating the environmental scan of measures created as part of the 2015 Rural Health project.[8] Because the Workgroup wanted to limit core-set measures to those endorsed by NQF, staff first identified currently-endorsed measures used for hospital and ambulatory care settings, where the level of analysis (i.e., the entity whose performance is assessed by the measure) is the hospital, clinician, or integrated delivery system. From this list of measures, staff identified those that met the Workgroup's measure selection criteria and condition/topic preferences as described above, then applied a tiered scoring system that reflected the Workgroup's prioritization of those criteria and preferences. Staff used the 75th percentile of the nonzero scores as a cut-point to identify 119 measures that most closely reflect the preferences of the Workgroup.

From these 119 measures, staff identified an initial "strawman" draft core set of 44 measures for Workgroup deliberation, based on previous input from the Workgroup as well as on information gleaned from NQF's 2015 Rural Health Project. During its discussion of these measures, the Workgroup identified several additional factors that it wanted to consider as part of the core-set identification process, including ease and cost of data collection, use of measures in federal or other quality improvement programs, and potential unintended consequences. With these considerations in mind, the Workgroup identified an additional 30 measures for potential inclusion in the draft core set, bringing the total up to 74 measures for further deliberation (Appendix F). Over the course of two webinars, the Workgroup engaged in an in-depth discussion of the 74 measures. The measures were grouped according to condition or topic, with the dual purpose of helping to narrow the number of draft core set measures and eliciting a rationale for inclusion or exclusion. From each grouping, the Workgroup selected those measures it determined to be most appropriate for a core set of rural-relevant measures.

A more comprehensive description of the measure selection process is included in Appendix E.

## Draft Core Set Recommendations

The Workgroup recommended 21 measures for the draft core set: eight for the hospital setting and 13 for the ambulatory setting. The Workgroup did not come to complete consensus on one of the hospital measures, but has included it tentatively and will revisit the decision at a later date.

The Workgroup also identified an additional six measures that address highly relevant aspects of care in the ambulatory setting for rural providers and communities (e.g., cancer screening; blood pressure control; childhood immunizations, and weight assessment and related counseling for adolescents). However, these six measures have been specified to assess quality of care provided by health plans and integrated delivery systems and are endorsed by NQF for use at those levels of analysis only. Thus, these measures do not meet the Workgroup's criterion for NQF endorsement in the strictest sense, because NQF has not endorsed them for the clinician level of analysis (i.e., to assess the quality of care by individual clinicians or clinician groups). NQF recommends that users of these measures work with the relevant measure stewards to determine the suitability of these measures for assessing clinician care and, if deemed suitable, revise the measures as needed and demonstrate reliability and validity for the clinician level of analysis. If accomplished, the measure stewards can then seek NQF endorsement of these measures for the clinician level of analysis.

In general, the measures recommended by the Workgroup for the draft core set align with the recommendations made by NQF's 2015 Rural Health Committee. For example, the number of proposed measures falls within the recommended range of 10-20 measures per setting, although there may be a need for more hospital-specific measures. The majority of the recommended measures are cross-cutting or resistant to low case-volume and therefore should be applicable to a majority of rural patients and providers. Also, the draft core set includes process and outcome measures, including measures based on patient report.

Tables 1-3 list the draft core-set measures by setting. The tables indicate how the measures meet the Workgroup's selection criteria and provide additional rationale for why the Workgroup selected these measures for the core set.

### *Draft Core Set for the Hospital Setting*

Each of the eight measures that the Workgroup recommended for the hospital setting draft core set (Table 1) are cross-cutting and resistant to low case-volume. One measure addresses transitions of care. Three of the recommended measures address three of the Workgroup's priority conditions or services (i.e., substance abuse, perinatal care, and hospital readmissions).

The Workgroup did not come to complete consensus on #1789: *National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure*. Some Workgroup members noted that because the measure is being used for acute care hospitals, including it in the core set would allow rural hospitals to compare themselves to hospitals nationwide; however, other members remained concerned about the case-volume issue and the measure's risk-adjustment methodology. The Workgroup will revisit this measure after obtaining feedback during the public commenting period.

**Table 1. Draft Core Set Recommendations—Hospital Setting**

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses Priority Condition or Service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **0138** National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure | Yes | Yes | | — | • Targets the most common hospital infection, and therefore likely resistant to low case-volume |
| **0166** HCAHPS | Yes | Yes | | — | • Important to capture patient experience in inpatient setting<br>• Noted the burden of collecting data for the measures and recommended CMS consider allowing data for the measures to be collected electronically to reduce burden and encourage more participation |
| **0291** Emergency Transfer Communication Measure | Yes | Yes | Yes | — | • In rural areas there may be issues (i.e., weather) that will cause unavoidable delays in transfer time so measures related to transfer time are not appropriate but communication around transfer is important to measure |
| **0371** Venous Thromboembolism Prophylaxis | Yes | Yes | | — | • There are many risk factors for VTE and numerous hospital units in which it can occur; the incidence and seriousness of unattended outcomes warrant the measure |
| **0471** PC-02 Cesarean Birth | Yes | Yes | | Perinatal Care | • Rural areas have a limited number of obstetricians, but it is important to focus on best practices in obstetric care including a reduction in cesarean section deliveries |
| **1661** SUB-1 Alcohol Use Screening | Yes | Yes | | Substance Abuse | • Important to include a measure that screens for alcohol use or abuse at the clinician and facility levels of analysis. 1661 assessed at the facility level |

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses Priority Condition or Service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **1717** National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure | Yes | Yes | | — | • Targets a common hospital infection, and therefore likely resistant to low case-volume |
| **Still under consideration:** **1789** Hospital-Wide All-Cause Unplanned Readmission Measure (HWR) | Yes | Yes | | Hospital Readmissions | • Currently being used for acute care hospitals, and inclusion in the core set would allow rural hospitals to compare to hospitals nationwide. Workgroup is concerned about the volume issues and the risk adjustment methodology used in the measure |

— = not applicable

### *Draft Core Set for the Ambulatory Care Setting*

Of the 13 measures that the Workgroup recommended for the core set for the ambulatory care setting (Table 2), 10 are cross-cutting, and all are resistant to low case-volume. The three measures that are not cross-cutting address either diabetes or mental health (specifically, remission of depression). Eight of the recommended measures address several of the Workgroup's priority conditions or services, including diabetes, medication reconciliation, mental health, substance use, and perinatal services.

**Table 2. Draft Core Set Recommendations—Ambulatory Care Setting**

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses Priority Condition or Service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **0005** CAHPS Clinician & Group Surveys (CG-CAHPS)-Adult, Child | Yes | Yes | | — | • Important to capture patient experience in outpatient setting<br>• Noted the burden of collecting data for the measures and recommended CMS consider allowing data for the measures to be collected electronically to reduce burden and encourage more participation |
| **0028** Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention | Yes | Yes | | Substance Abuse | • Measure contains two important components to care, screening for tobacco use and if the individual screens positive, offering treatment |
| **0041** Preventive Care and Screening: Influenza Immunization | Yes | Yes | | — | • Noted that although immunizations are administered through sources other than the primary care office, agreed that this does not relieve the provider of the responsibility of asking about immunization status |
| **0059** Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) | No | Yes | | Diabetes | • Captures important aspect of care, patient's degree of control of diabetes |
| **0097** Medication Reconciliation Post-Discharge | Yes | Yes | | Medication Reconciliation | • Important because medication errors during transitions of care are a common patient safety problem |
| **0202** Falls with injury | Yes | Yes | | — | • Important to measure since inpatient falls can result in injury, leading to increased morbidity and mortality |
| **0326** Advance Care Plan | Yes | Yes | | — | • Considering older demographic of rural population, it is an important aspect of end-of-life care to capture |

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses Priority Condition or Service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **0418** Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan | Yes | Yes | | Mental Health (depression screening) | • Important aspect of care to capture, is not overly resource dependent<br>• When comparing against a similar measure with 12-month time period, group preferred more immediate six-month timeframe |
| **0421** Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up | Yes | Yes | | — | • Addresses critical issue in rural healthcare |
| **0711** Depression Remission at Six Months | No | Yes | | Mental Health | • Important outcome measure<br>• When comparing against a similar measure with 12-month time period, group preferred more immediate six-month timeframe |
| **0729** Optimal Diabetes Care | No | Yes | | Diabetes | • Captures overall clinical management |
| **2152** Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling | Yes | Yes | | Substance Abuse | • Important to include a measure that screens for alcohol use/abuse at the clinician and facility levels of analysis. 2152 assessed at the clinician level |
| **2903** Contraceptive Care – Most & Moderately Effective Methods<br><br>[NOTE: this measure is specified for facility, health plan, and state/region; should not be used at the clinician level of analysis] | Yes | Yes | | Perinatal Care | • Important aspect of care |

— = not applicable

### *Integrated Delivery System and Health Plan Measures for the Ambulatory Care Setting*

Throughout its deliberations, the Workgroup identified six additional measures that assess critical elements of care in rural settings (Table 3). These measures are specified and endorsed for the integrated delivery system and health plan levels of analysis. While applicable to the ambulatory care setting, they have not been endorsed by NQF to assess quality of care for individual clinicians or groups

of clinicians. The Workgroup was of two minds regarding these measures: a desire to recommend them for the core set for the ambulatory care setting because of the importance of the topics, but a reluctance to do so because they were not developed for clinician-level accountability. Ultimately, the Workgroup agreed that the measures should be listed, but with clearly stated caveats regarding the level of analysis. Members also agreed that formal testing of the measures for the clinician level of analysis is both encouraged and expected.

**Table 3. Draft Core Set Recommendations—Ambulatory Care Setting, But Not Endorsed for Use at the Clinician Level of Analysis**

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses priority condition or service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **0018** Controlling High Blood Pressure | No | Yes | | Hypertension | • Desire to include a measure assessing blood pressure control<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| **0024** Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC) | Yes | Yes | | Pediatric Care | • Important measure for the pediatric population<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| **0032** Cervical Cancer Screening (CCS) | Yes | Yes | | — | • Strong support to include at least one cancer screening measure in the core set<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| **0034** Colorectal Cancer Screening (COL) | Yes | Yes | | — | • Strong support to include at least one cancer screening measure in the core set<br>• Of the three cancer screening measures considered, this one had the most support from the Workgroup<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |

| NQF # and Measure Title | Cross-cutting | Resistant to Low Case-Volume | Transitions of Care | Addresses priority condition or service | Additional Rationale for Inclusion |
|---|---|---|---|---|---|
| **0038** Childhood Immunization Status (CIS) | Yes | Yes | | Pediatric Care | • Good measure-preventative care<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| **2372** Breast Cancer Screening | Yes | Yes | | — | • Strong support to include at least one cancer screening measure in the core set<br>• Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |

— = not applicable

## Identifying and Prioritizing Measurement Gaps

As background for its discussion of measurement gap areas, the Workgroup reviewed gaps identified in NQF's 2015 Rural Health Report.[8] These included transitions of care (both appropriateness and timeliness of transfers); alcohol and drug treatment; access and timeliness of care; cost measures; population health at the geographic level (regional or community); and advance directives and end-of-life measures. Focusing on an earlier iteration of the draft core set with 44 measures, the Workgroup noted the following in its discussion of measurement gap areas:

- Access to care
    - The Workgroup agreed that access to care is an important measurement gap, but cautioned that measuring access should be done with careful consideration for potential unintended consequences. For example, members discussed measures of timeliness of care, recognizing their usefulness as indicators of access, but also the potential unintended effect of penalizing a provider if wait time is increased due to the need to transfer a patient to another facility.
    - The Workgroup acknowledged that telehealth could address lack of access to care and noted the absence of measures specific to telehealth. Members agreed that performance measures should allow telehealth as an option for care delivery, but recommended that the focus should be on measuring access to care more generally rather than completely relying on measures for telehealth.
- Disparities in care
    - The Workgroup discussed the need for measures to assess disparities in care and questioned whether such measures exist. NQF staff noted that measures submitted to NQF for endorsement sometimes have information regarding differences in

performance for population subgroups, but these data are not easily extractable from the measure submissions received and thus not easily tagged as such for consideration in this exercise. Note that two previous NQF reports have identified several NQF-endorsed measures as disparities sensitive, although the methodologies applied were somewhat different. [11,13]

- Differing values of patients and providers
    - Members noted that patients and providers often value different things. They pointed to recent research by the University of Utah indicating that while access and cost are most important to patients, providers often are more interested in their patients' health outcomes and their own adherence to standards of care.[14] Members suggested that the draft core set include measures that address these different values.
- Outcome measures, particularly patient-reported outcomes
    - Some Workgroup members believed that the draft core set of 44 measures did not include enough outcome measures in general, and particularly not enough measures based on patient report (15 of the 44 were outcome measures, but only three were patient reported outcome-based performance measures, or PRO-PMs). However, other members cautioned against inclusion of overly specialized outcome measures (e.g., measures of complications for patients with specific conditions or procedures) in the core set due to concerns about applicability and low case-volume.

The Workgroup reiterated concerns about appropriate risk-adjustment for outcome measures used to assess rural providers, recognizing inadequate risk-adjustment for rural residents or providers as a gap in measurement. However, the Workgroup's discussion about risk-adjustment was nonspecific. That is, members did not identify particular measures that they believe are inadequately risk-adjusted. Instead, members primarily noted concerns about lack of adjustment for social risk and the potential unintended consequences to both rural providers and residents if inadequately adjusted measures are used in public reporting or payment programs.

Also, because of the Workgroup's predilection for several measures that are specified for the health plan and integrated delivery system levels of analysis rather than for clinicians or hospitals (see core set discussion above), members recognized that when a measure does not assess care at the desired level of analysis, it can be considered a gap in measurement.

The Workgroup agreed that the two cost measures initially considered for potential inclusion in the draft core set (#1598 and #1604, per-member per-month measures of total resource use and cost, respectively), are not appropriate for rural providers. Members noted that costs may be relatively less under the control of rural providers compared to nonrural providers, particularly for providers who are not part of an integrated system, or who lack access to lower cost treatment options such as urgent care clinics that patients might use instead of emergency rooms. They also noted that small facilities may not have access to group purchasing organizations and might therefore have higher supply chain costs. The Workgroup therefore identified cost measures as a gap area.

After discussion, the Workgroup identified the following as the highest priority measurement gap areas (from most to least important). Note that the Workgroup did not provide suggestions for specific cost or outcome measures.

1. Access to care (including timeliness of care)
2. Transitions in care
3. Cost
4. Substance use measures, particularly those focused on alcohol and opioids
5. Outcome measures

Of note, the draft core set of measures identified to date includes a transition measure and three substance abuse measures.

## Considering Access to Care from a Rural Perspective

As noted earlier, the MAP Rural Health Workgroup was tasked by HHS to discuss and provide recommendations regarding a specific area of measurement relevant to rural residents and providers. Although NQF staff suggested several potential topics for the Workgroup's consideration, the Workgroup decided to focus on access to care from the rural perspective, a topic that arose on multiple occasions as members deliberated on how to identify rural-relevant measures for the draft core set and discussed gap areas in measurement.

The Workgroup recognized that access to care is a multifaceted issue that has unique challenges in the rural setting. However, given the complexity of the topic itself, and the relatively short time allotted for this task, the Workgroup focused its efforts on the following:

- identifying those facets of access that are particularly relevant to rural residents
- documenting, where appropriate, key challenges to access-to-care measurement from the rural perspective
- identifying ways to address those challenges

The Workgroup carried out this work using the following assumptions:

- Access and quality are difficult to de-link. Some Workgroup members equated access to quality, suggesting that without access to care, it isn't possible to have high-quality care. However, members also acknowledged that access does not ensure quality. They noted the importance of avoiding a two-tiered system wherein rural residents have reasonable access yet receive less-than-optimal care. Ultimately, the Workgroup agreed that while access does not equal quality, it is a strong determinant of quality, at least in some environments.
- Often in rural settings, there are limited resources, personnel, and other complicating factors. This makes special consideration for unintended consequences necessary when considering measures of access to care in rural settings. For example, Workgroup members discussed measures of timeliness of care, recognizing their usefulness as indicators of access but noting the potential unintended effect of penalizing a provider that transfers a patient to another facility because the transfer increases the patient's wait time for a procedure.
- Many things are outside of an individual clinician's locus of control (e.g., the availability of specialists in a particular geographic area). The Workgroup noted the challenges of holding individual clinicians accountable for things that can also be affected by factors such as regional

realities or personal decisions by patients, yet the Workgroup acknowledged the role of individual clinicians in *influencing* outcomes that he or she may not be able to control completely. Workgroup members agreed that individual clinicians should not be held accountable for certain facets of access to care. Instead, members highlighted the importance of higher levels of accountability (e.g., programs, health plans, integrated health plans, and integrated health delivery systems) and suggested that such health system accountability may sometimes be more appropriate than individual clinician accountability.

- Distance to care and transportation needs are key issues for rural residents when considering access to care. People who live in frontier areas often must travel long distances to obtain even basic healthcare, but distance may also be a factor for other rural residents when obtaining specialty clinician or hospital care. The lack of transportation can also challenge rural residents, regardless of distance to providers (although longer distances can worsen barriers to access due to lack of transportation). The Workgroup discussed three potential sources of difficulties with transportation for rural residents: lack of public transportation options; income challenges that make it difficult to afford a reliable means of transportation; and decreasing numbers of family caregivers who can provide transportation (for example, due to age or job responsibilities that make it difficult to take necessary time off).
- The Workgroup recognized that telehealth has tremendous potential for increasing access to health services for patients in rural settings. However, members identified several barriers and challenges regarding its use. For example, members noted that for telehealth services under Medicare and Medicaid, patients must to go the medical practice in order to use the telehealth arrangement, and this can be a barrier to access. Depending on the payer, fees may be associated with the service, and some third party payers do not cover telehealth services. Such fees may result in additional out-of-pocket cost to the beneficiary. There may be licensing or other regulatory barriers to providing or receiving telehealth. Finally, Workgroup members noted the need for education regarding of telehealth services among rural patients in order to help them become more comfortable with the idea of obtaining healthcare via telehealth.
- The Workgroup acknowledged issues surrounding the healthcare workforce and its link to access to care. Members noted the need for increased investment in the rural workforce as well as changes to payment or other policies that would encourage more clinicians to work in rural areas.
- The Workgroup discussed how measure specifications could be improved to increase the validity of quality and access measures for rural providers. Members agreed that risk adjusting quality measures for social determinants of health, as well as for other aspects of rural environments and populations (e.g., distance or transportation needs), could increase validity and enhance the ability to compare performance among various rural and nonrural providers. Members also recommended constructing measures that are flexible enough to allow various modes of care delivery, such as telehealth.
- The prioritization of measurement subdomains depends heavily on the perspective used. Because of this, the Workgroup focused on prioritizing and providing considerations from the perspective of the rural resident rather than from the perspective of the rural provider or the healthcare system as a whole.

The Workgroup considered the prior measurement frameworks developed by the NQF Disparities and Telehealth Committees, both of which include domains and subdomains describing access to care. From these, the Workgroup selected the following three domains as particularly relevant for rural residents:

- Availability
- Accessibility
- Affordability

Table 4 provides an overview of the Workgroup's discussion of these subdomains. It includes relevant facets of access to care, specific challenges faced by rural providers for those facets, and ways that rural providers can begin to address the challenges. A brief summary of the Workgroup's discussion follows.

**Table 4. Facets and Domains of Access to Care Most Relevant for Rural Residents**

| Facets of Access | Domain | Challenges | Ways to address |
|---|---|---|---|
| Appointments: after hours or same day | Availability | • Schedules already full<br>• Burnout<br>• Emergencies<br>• Maybe be difficult to contact patients | • Public policy strategies: investing in the rural workforce; changes in payment policies to encourage clinicians to work in rural areas<br>• Increased use of team-based care and working "to the top of their license"<br>• Educate about abilities of nonphysician clinicians<br>• Telehealth |
| Access to specialty care | Availability | • Often not local | • Improve referral relationships<br>• Broader referral patterns<br>• Telehealth |
| Timeliness of care: time to next appointment (includes follow-up care); specialty care; PAC/LTC; nontraditional care | Availability | • Schedules already full<br>• Distance can be a barrier<br>• Recruiting difficulties create backlog<br>• "Popular" providers (e.g., gender-based) | • Good care coordination with referral sites<br>• Partner with support services (e.g., for transportation)<br>• Telehealth |
| Language: Interpretation and health literacy | Accessibility | • Bilingual staff hard to recruit | • Tele-access to interpreters |

| Facets of Access | Domain | Challenges | Ways to address |
|---|---|---|---|
| Transportation ("getting there") | Accessibility | • Fewer public options<br>• Distance<br>• Fewer family caregivers to help due to aging of the population | • Telehealth<br>• Community partnerships |
| Health information | Accessibility | • Connectivity<br>• Technology doesn't support | • None suggested |
| Health literacy | Accessibility | • None identified | • Education about importance of patient engagement<br>• Improve clinician-patient communication |
| Physical spaces | Accessibility | • Difficult and/or expensive to find or retrofit spaces | • None suggested |
| Delayed care due to out-of-pocket costs | Affordability | • Fixed cost reimbursement | • None suggested |
| Out-of-pocket costs | Affordability | • Distance/transportation may disproportionately affect rural residents | • Appropriate risk adjustment |

## Availability

As discussed by the MAP Rural Health Workgroup, this domain reflects the existence of services in rural areas. The Workgroup considered access to after-hours and same-day appointments, access to specialty care, and timeliness of care—particularly as measured by the next available appointment—as the most important facets of availability for rural residents.

### *Access to After Hours and/or Same Day Appointments*

The Workgroup acknowledged the clinician shortage in many rural areas and focused on this challenge as the driver of lack of access to after-hours or same-day appointments. Members recommended addressing workforce issues through various public policy and payment strategies at the state and national levels. However, they also suggested several strategies that individual practices can use to help mitigate provider shortage.

One recommendation is for individual practices to rely more on team-based care. By supporting clinicians such as nurse practitioners and physician assistants to practice to the "top of their license," practices may be able increase the number of available appointments. The Workgroup noted inconsistencies of licensing and credentialing between states around the scope of practice and other requirements (for example, regarding privileges and supervision). Addressing these issues likely will require legislative and/or regulatory intervention, changes in state licensing and credentialing processes,

and potentially, greater consistency in education and training for nonphysician clinicians, particularly for conditions requiring specialty care.

Even so, Workgroup members recognized many individuals prefer to see a medical doctor instead of another type of practitioner. Thus, practices, health plans, states, and national campaigns should educate consumers about the numerous types of qualified practitioners who are able to address their medical concerns appropriately. These educational efforts should, to the extent possible, be specific about which types of clinicians can do which things.

The Workgroup suggested use of telehealth as another way to increase the number of same-day or after-hours appointments. However, in addition to previously noted caveats concerning telehealth, Workgroup members cautioned stakeholders about the potential for care fragmentation that may arise from telehealth consultations.

### *Access to Specialty Care*

The Workgroup noted the substantial heterogeneity in the availability of specialty care for rural residents. It is sometimes possible to have specialists travel to rural communities, but often this is possible only on a limited basis (e.g., on a particular day of the week). Thus, while specialist care technically is available, it may be inconsistent or delayed.

The Workgroup agreed that having good referral relationships is one way to address the issue of access to specialty care, but again, this approach has limitations due to the shortage of specialists in some areas of the country. One member noted that some rural practices refer individuals to tertiary centers that are a little further away from the patient than the closest tertiary center. This strategy takes advantage of the fact that the more distant centers may have more openings and shorter wait times for specialty services.

Again, the Workgroup recommended the use of telehealth as a way to increase patients' access to available specialists, although members emphasized that this still does not address the overall workforce shortages. Members also noted that, due to regulatory and licensing restrictions, the telehealth provider usually must be located in the same state as the patient.

### *Timeliness of Care: Next Appointment*

Again, the Workgroup pointed to good referral relationships and strong care coordination with referral sites as a way to ensure reasonable timeliness for next appointments, along with use of telehealth.

Workgroup members also recommended that health plans devote more attention to network adequacy for rural areas, not only to ensure that an adequate number of clinicians are available in-network, but also to expedite administrative processes whereby providers in rural areas are able to bill the health plans in a timely manner.

Because lack of transportation can affect ability to access care in a timely manner, Workgroup members recommended developing partnerships within the community to address this challenge. Examples of this approach include partnering with existing transportation services such as Lyft and Uber or even

employing a driver. One member noted that several states have found it cost effective to provide transportation services for their Medicaid clients so they don't miss appointments.

## Accessibility

As discussed by the MAP Rural Health Workgroup, this domain reflects the ability to actually obtain services. The Workgroup considered language interpretation, health information health literacy, transportation, and physical accommodation as the most important facets of accessibility for rural residents.

### *Language Interpretation Services*

The Workgroup recognized the critical role of language in the accessibility of care. While language barriers may not be a challenge for many rural providers, these barriers can be a substantial challenge in certain parts of the country. Workgroup members recommended that rural providers use interpreter services that are available via phone or web-based platforms if in-person interpreters are not available. While such services are widely available, rural providers may need to educate their staff on how to use these resources.

### *Health Information*

Workgroup members agreed on the importance of timely and accessible health information for rural residents. They specifically noted a need to improve the quality of information that patients receive from their insurer (e.g., who is or is not in-network). In some rural areas, the receipt of health information may be hindered due to the issues with continuity of internet and phone services. Workgroup members also noted that IT resources of some rural providers may not facilitate good communication of health information (e.g., patient portals not supported). Workgroup members were unable to offer potential solutions for these challenges.

### *Health Literacy*

The Workgroup also recognized that patients must be able to understand the healthcare information they receive. Members recommended a two-fold approach to increase health literacy of rural residents: education for both patients and clinicians on the importance of patient engagement in healthcare, along with improvements in clinician-patient communication overall.

### *Transportation*

As noted above, the Workgroup recognized transportation as a barrier to access. The Workgroup recommended use of telehealth as a way to address this issue.

The Workgroup emphasized the importance of involving community partners (e.g., nursing homes, home health agencies, other support programs and activities) when conducting a community needs assessment so that transportation needs can be assessed and potential avenues for sharing services can be identified. Examples of this approach include partnering with existing transportation services such as Lyft and Uber or contracting with a local bus service. Workgroup members also suggested leveraging other resources such as community paramedics or other community health workers. This strategy could address the transportation challenge for patients by taking services to the patient.

In addition to these services, unpaid family caregivers have an important role in providing transportation to and from healthcare appointments. However, due to the aging of the population, fewer family caregivers will be able to provide this aid going forward. While the Workgroup recognized the need to address this aspect of transportation for rural residents, it did not provide specific recommendations for how to accomplish this.

### *Physical Accessibility of Facilities, Offices, Clinics*

Workgroup members noted that rural providers face significant challenges in finding and/or retrofitting spaces that meet the needs of their patients who have physical disabilities. However, they were unable to offer potential solutions to this challenge.

## Affordability

As discussed by the MAP Rural Health Workgroup, this domain reflects the ability of rural residents to pay for healthcare. The Workgroup considered total out-of-pocket costs and delayed care because of the inability to pay for healthcare as the most important facets of affordability for rural residents.

The Workgroup discussed whether to consider affordability as a separate subdomain of access to care from the rural perspective or include out-of-pocket costs and delays in care as facets of accessibility. Workgroup members also acknowledged the importance of cost for the system as a whole, and one member proposed including system-level examples under the Affordability subdomain and including patient-level facets such as out-of-pocket costs under the Accessibility domain. Ultimately, members agreed that rural residents make care decisions (including delaying care) based on affordability, and keeping Affordability as a separate domain emphasizes its importance as a driver of access to care. The Workgroup also decided not to focus on total cost of care because it seemingly pertains more to payers or the healthcare system as a whole rather than to the individual rural resident.

### *Total Out-of-Pocket Cost*

As previously mentioned, patients in rural areas often must travel great distances to access care and therefore incur additional indirect costs (e.g., for lodging, food, and transportation). Workgroup members emphasized including these additional expenses when considering the patients' out-of-pocket costs. They also suggested consideration of distance as part of any risk-adjustment approach for cost measures.

### *Delayed Care Due to Out-of-Pocket Costs*

The Workgroup discussed the shift to higher deductible plans or other forms of underinsurance for rural Americans as well as network inadequacy as major factors that cause rural patients to delay care. For example, rural residents may be less likely to have generous post-retirement coverage and therefore find it harder to afford Medicare-covered services that require co-pays. Members noted that when health insurer networks are not adequate, rural patients must choose between seeing an in-network provider who is located much farther away or seeing a closer provider who is out-of-network and therefore more expensive in terms of out-of-pocket costs. The Workgroup also noted that rural residents who have no insurance at all may be more likely to delay care. Workgroup members were unable to offer potential solutions for these challenges.

## Conclusion and Next Steps

NQF will post this report for a 30-day public commenting period. Following the commenting period, the Workgroup will convene in July 2018 to review public comments and finalize its recommendations.

In August 2018, the MAP Coordinating Committee will review and approve the recommendations of the MAP Rural Health Workgroup. NQF will then release a final report that details the final recommendations of the MAP Rural Health Workgroup and Coordinating Committee. The final report will include all comments submitted on this draft report.

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# Appendix A: MAP Background

## Description

The Patient Protection and Affordable Care Act (ACA) of 2010 requires that the U.S. Department of Health and Human Services (HHS) implement an annual, federal pre-rulemaking process to provide private-sector input to the quality and efficiency measures being considered for select federal public-reporting and performance-based payment programs. Since 2011, the National Quality Forum (NQF) has convened the Measure Applications Partnership (MAP) as a multistakeholder entity to provide recommendations on measures under consideration for use in federal programs by HHS. Under statute, HHS is required to publish a list of measures under consideration for rulemaking by December 1 of each year, and MAP then provides input to HHS on those measures by February 1 of the following year.

To accomplish this, NQF uses is a three-step process to elicit multistakeholder input on measure under consideration:

1. **Develop program measure set framework.** Using CMS critical program objectives and NQF measure selection criteria, NQF staff organizes each program's finalized measure set. These frameworks will be used to better understand the current measures in the program and how well any new measures might fit into the program by allowing workgroup members to quickly and visually identify gaps and other areas of needs.
2. **Evaluate measures under consideration for what they would add to the program measure sets.** MAP uses the Measure Selection Criteria and a defined decision algorithm to determine whether the measures under consideration will enhance the program measure sets. Staff performs a preliminary analysis based on the algorithm, and MAP workgroups discuss their recommendations for each measure under consideration during December in-person meetings.
3. **Identify and prioritize gaps for programs and settings.** MAP continues to identify gaps in measures within each program and provide measure ideas to spur development. MAP also considers the gaps across settings, prioritizing by importance and feasibility of addressing the gap when possible.

## Approach

The pre-rulemaking process allows input from stakeholders affected by or interested in the use of quality measures. This process encompasses several steps:

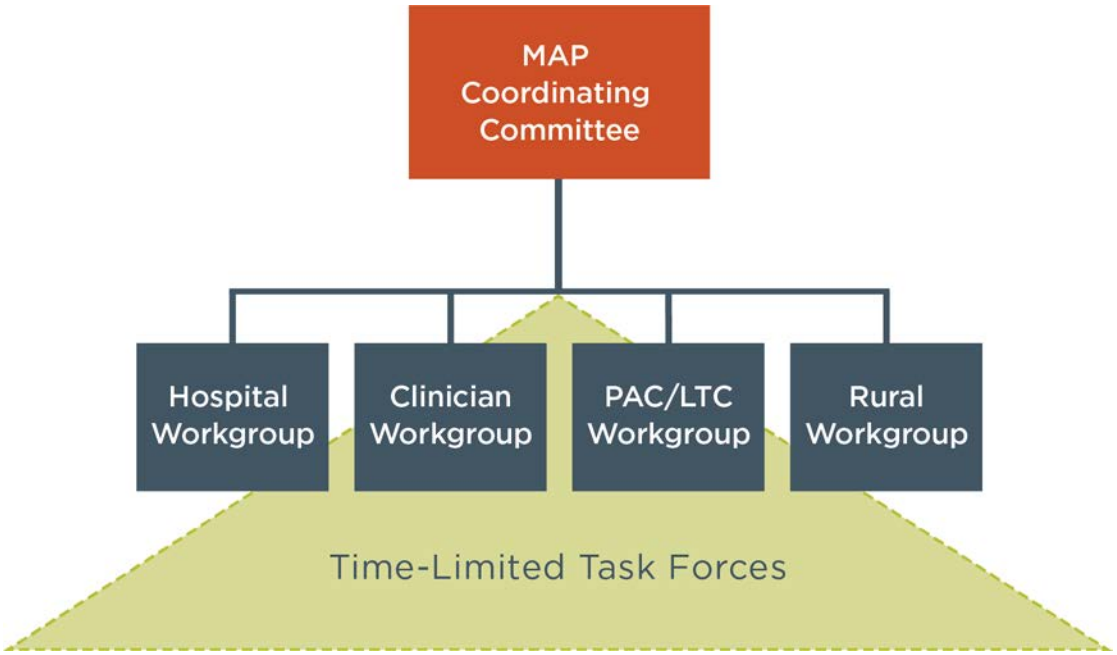
- Conduct an all-MAP orientation call to educate stakeholders on the role of MAP and the pre-rulemaking process
- Convene the MAP Coordinating Committee for a strategic planning meeting in the fall to provide input on the pre-rulemaking process and issues for the setting-specific workgroups to consider
- Convene the setting-specific Workgroups for an orientation on the federal programs and conduct the feedback loop process
- Post the list of measures under consideration on or before December 1 of each year
- Conduct a public comment period on the measures under consideration to solicit input on the

measures under consideration prior to the workgroups' deliberations

- Convene the setting-specific Workgroups via in-person meetings to provide initial recommendations
- Conduct a second public comment period to obtain input on the draft recommendations
- Convene the MAP Coordinating Committee to review public comments, review and finalize MAP recommendations, and consider strategic issues that may arise during the pre-rulemaking cycle
- Solicit and review nominations for the annual MAP membership nominations process

NQF solicits input on measures under consideration through a series of webinars and in-person meetings. In convening MAP, NQF brings together stakeholder groups in a unique collaboration that balances the interests of consumers, businesses and purchasers, health plans, clinicians and providers, communities and states, and suppliers. MAP's Coordinating Committee and six workgroups consist of over 150 healthcare leaders and experts representing nearly 90 organizations, subject matter experts, and seven federal agencies (as ex officio members) (see Figure 1).

**Figure 1. MAP Structure**



## Appendix B: MAP Rural Health Workgroup and NQF Staff

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# Appendix C: Summary of NQF's 2015 Rural Health Project

In 2014, the Department of Health and Human Services (HHS) tasked the National Quality Forum (NQF) to convene a multistakeholder Committee to identify challenges in healthcare performance measurement for rural providers and to make recommendations for mitigating these challenges, particularly in the context of CMS pay-for-performance programs. The specific objectives of this project were to:

- Make recommendations regarding measures appropriate for use in CMS pay-for-performance programs for rural hospitals and clinicians
- Make recommendations to help mitigate measurement challenges for rural providers, including the low case-volume challenge
- Identify measurement gaps for rural hospitals and clinicians

Providers of interest for the project included Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), Community Health Centers (CHCs), small rural non-CAH hospitals, other small rural clinical practices, and the clinicians who serve in any of these settings.

The findings and recommendations of the 20-member multistakeholder Committee, documented in its 2015 report, are summarized below.

## Key Issues Regarding Measurement of Rural Providers

Providers in rural areas face a number of challenges when delivering care and when engaging in performance measurement and quality improvement efforts. Many of these challenges stem from distance and from the diversity of rural areas. While many rural areas are relatively close to urban or suburban areas, many are not, and in fact, many are quite remote. Geographically isolated areas typically have fewer healthcare settings and providers than less isolated areas, and these very rural areas may experience difficulties due to transportation issues and lack of information technology capabilities. Multiple and disparate demands (e.g., direct patient care, business and operational responsibilities) compete for the time and attention of those who serve in small rural hospitals and clinician practices, and rural providers often have limited time, staff, and finances available for quality improvement activities. Many rural areas also have a disproportionate number of vulnerable residents (e.g., those with economic or other social disadvantages, those in poor health, and those with poor health behaviors). This heterogeneity has particular implications for healthcare performance measurement, including limited applicability of measures that are appropriate for nonrural areas. Moreover, rural providers may not have enough patients to achieve reliable and valid performance measurement results. While urban areas may experience many of these same difficulties, in rural areas they likely pose greater challenges for, and have greater impact on, quality measurement and improvement activities.

Although rural hospitals and clinicians do participate in a variety of private-sector, state, and federal quality measurement and improvement efforts, many Centers for Medicare & Medicaid Services (CMS) quality initiatives systematically exclude rural hospitals and clinicians from participation because they are paid differently than other providers. This exclusion may impact their ability to identify and address

opportunities for improvement in care and may deny rural residents access to information on provider performance. Moreover, exclusion of rural providers from the CMS quality programs prevents these rural providers from earning payment incentives that are open to nonrural providers.

## Overarching Recommendation

The Committee agreed that nonparticipation in CMS quality improvement programs by rural providers deprives many rural residents of easily accessible information about provider performance, prevents many rural providers from earning payment incentives that are available to nonrural providers, possibly hinders implementation of comprehensive quality measurement efforts on behalf of rural residents, and potentially signals that rural providers cannot provide high-quality care.

Accordingly, the Committee's overarching recommendation was to ***make participation in CMS quality measurement and quality improvement programs mandatory for all rural providers but allow a phased approach for full participation across program types and address low case volume explicitly.***

## Supporting Recommendations

The Committee also made several additional, stand-alone recommendations that will, if implemented, help to ease the transition to mandatory participation. These supporting recommendations are grouped into four topic areas, as follows.

### *Development of Rural-Relevant Measures*

- Fund development of rural-relevant measures
- Develop and/or modify measures to address low case volume explicitly
- Consider rural-relevant sociodemographic factors in risk adjustment
- When creating and using composite measures, ensure that the component measures are appropriate for rural (particularly low-volume) providers

### *Alignment of Measurement Efforts*

This recommendation encompasses alignment of measures, data collection efforts, and technical assistance and other informational resources.

### *Measure Selection*

- Use guiding principles for selecting quality measures that are relevant for rural providers, as follows:
    - **Address the low case volume challenge** – Because many rural areas will have small sample sizes that will impact measure reliability, measures used for rural providers should be broadly applicable for most rural providers.
    - **Facilitate fair comparisons for rural providers** – For instance, through appropriate case-mix adjustment, establishing appropriate peer groups for comparison, or both
    - **Address areas of high risk for patients** – Some care processes should "just happen" (e.g., medication reconciliation)
    - **Support local access to care** – Whenever possible including telehealth measures. The Committee also noted that local access to care measures may be better suited for "higher" levels of analysis such as health plans, ACOs, or even geographic populations.

    - **Address actionable activities for rural providers** – For example, activities such as triage and transfer may be more common among rural providers
    - **Be evidence-based** – Supported by empirical evidence demonstrating clinical effectiveness and a link to desired health outcomes
    - **Address areas where there is opportunity for improvement in rural areas**
    - **Be suitable for use in internal quality improvement efforts**
    - **Require feasibility for data collection by rural providers**
    - **Exclude measures that have unintended consequences for rural patients** – A particular point of concern is potential for hindering access to care in rural areas
    - **Be suitable for use in particular programs** – General consensus that only the "strongest measures" (in terms of evidence, reliability, validity, etc.) should be used in pay-for-performance programs
    - **Select measures that align with other programs**
    - **Support the triple aim of the National Quality Strategy (NQS)** – Better care, healthy people/healthy communities, affordable care.
- Use a core set of measures, along with a menu of optional measures for rural providers
    - The Committee provided specific guidance for the number and types of measures that would be appropriate for a core set, as follows:
        - Include no more than 10-20 measures
        - Apply to a majority of rural providers
        - Apply to a majority of patients in rural settings
        - Favor cross-cutting over disease-specific measures, unless limited to activities such as screening for a specific condition
        - Choose measures that align to the extent possible, at a minimum across topic areas
        - Include a variety of measure types
        - Use a variety of data collection strategies and data sources, so that the burden of data collection is minimized
- Consider measures that are used in patient-centered medical home models
- Create a Measure Applications Partnership (MAP) workgroup to advise CMS on the selection of rural-relevant measures

### *Payment Considerations*

- For rural providers, create payment programs that include incentive payments, but not penalties
- Offer rewards for rural providers based on achievement or improvement
- Encourage voluntary groupings of rural providers for payment incentive purposes
- Fund additional work to consider how peer groups for rural providers should be defined and used for comparison purposes

## Appendix D: Project Approach and Timeline

During its first year, the MAP Rural Health Workgroup identified a core set of the best available rural-relevant measures to address the needs of the rural population and provided a rural perspective on measuring and improving access to care. The Workgroup also identified and prioritized rural-relevant gaps in measurement and provided input on alignment and coordination of measurement efforts. The approach used by NQF for this work is described below.

### Multistakeholder Committee

NQF convened a 25-member, multistakeholder group comprised of 18 organizational members, seven subject matter experts, and three federal liaisons. The composition of the Workgroup reflected the diversity of rural providers, including those from Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), as well as small Prospective Payment System (PPS) hospitals and clinician practices. Membership of the Workgroup also included representatives from across the healthcare delivery system (e.g., academia, measure developers, health plans, purchasers, employers, consumers, patient advocacy groups, etc.).

Organizations selected for the Workgroup represented leading stakeholder groups affected by rural health quality measurement issues. They had structures and processes for setting policy and communicating with their constituencies as well as contributing to a balance of stakeholder interests. Individual subject matter experts demonstrated expertise in a relevant field, such as quality measurement, public reporting, or performance-based payment.

### Workgroup Deliberations

Between November 2017 and April 2018, the MAP Rural Health Workgroup convened for six, two-hour web meetings to identify a core set of the best available measures to address the needs of the rural population in the ambulatory and hospital settings, identify and prioritize rural-relevant gaps in measurement, and provide recommendations to address access to care for rural communities, the measurement topic that the Workgroup decided to explore. Further, between web meetings, the Workgroup provided additional input and guidance on the project goals as needed. NQF staff drafted two reports of the recommendations. The first draft report details the measure selection criteria, draft core sets, and prioritized measurement gaps. The second draft report updates the first draft report and includes the Workgroup's recommendations on access to care through the rural perspective. NQF staff posted the second draft report for public comment from June 1 to July 2, 2018. Workgroup members will meet in July 2018 to discuss the public comments and discuss further refinements to the draft report. In August 2018, the MAP Coordinating Committee will review and finalize the Workgroup's recommendations.

## Timeline and Deliverables

| Month | Event |
|---|---|
| September 2017 | Call for Workgroup Nominations |
| November 2017 | Finalize Workgroup Roster |
| | Webinar #1: Task Force Orientation and Q&A; Measure selection criteria; feedback on relevant measurement topic area |
| December 2017 | Webinar #2: Finalize measure selection criteria; review and discuss environmental scan of measures; develop draft core sets; input on relevant measurement topic area |
| January 2018 | Webinar #3: Finalize selection criteria, revise draft preliminary core sets; finalize draft prioritized measurement gap list |
| February 2018 | Webinar #4: Review Draft Report # 1, provide feedback, finalize draft core sets and prioritized measure gaps list |
| | Deliverable: Draft Report # 1: Selection criteria, draft core sets, prioritized measurement gaps |
| March 2018 | Webinar #4.5: Complete finalization of draft core sets |
| | Webinar #5: Discuss relevant measurement topic and provide initial recommendations |
| April 2018 | Webinar #6: Finalize recommendations for relevant measurement topic |
| May 2018 | Deliverable: Draft Report # 2: Update to draft core sets and recommendations on measurement topic |
| June 2018 | Comment period on Draft Report #2 |
| July 2018 | Webinar #7: Post-Comment Call - Draft Report # 2; finalize core sets, gap list, and recommendations |
| August 2018 | Webinar #8: MAP Coordinating Committee webinar to approve final recommendations |
| | Deliverable: Final Report |

## Appendix E: Measure Selection Process

Over the course of two webinars and a post-webinar survey in November and December 2017, the Workgroup came to consensus on the criteria for identifying measures for potential inclusion in a draft core set of measures (see the body of this report for a discussion of those criteria and why the Workgroup chose them). Moving from the identification of the selection criteria to agreement on recommendations for measures to be included in the core set involved both a quantitative approach to prioritize the selection criteria and to narrow the number of measures to be considered in-depth by the Workgroup accordingly, along with iterative qualitative evaluations and consensus-building discussions over the course of three additional webinars to refine the selection process, as detailed below.

### Environmental Scan of Measures

Prior to beginning the quantitative stage of the measure selection process, NQF staff updated the environmental scan of measures created as part of the 2015 Rural Health project.[8] The environmental scan from the 2015 project contains more than 1,000 hospital- and clinician-level performance measures identified through relevant peer-reviewed and grey literature and publicly available repositories of measures, as well as input from the NQF members and key informants.

To update the 2015 scan, NQF staff added newly endorsed measures to the scan and updated the endorsement status to reflect changes in NQF's portfolio of measures since 2015, refreshed information regarding use of measures in various federal quality improvement programs, and included information on other measures identified through recent NQF measurement activities around home and community-based services, telehealth, disparities, Medicaid-focused measurement, emergency department transitions of care, and diagnostic quality and safety. The updated scan of measures and final working files are available online.

Based on the Workgroup's desire to focus on NQF-endorsed measures for populating the core set, staff focused all subsequent analysis and review of the scan on currently endorsed measures that apply to hospital and ambulatory care settings and reflect assessment at the hospital, clinician, or integrated delivery system levels of analysis.

### Quantitative Methodology for Selecting Core Set Measures

After discussions of potential criteria and priority conditions and topics in Webinar 1, Workgroup members engaged in a survey-based prioritization exercise designed to help rank the importance of the conditions and topics for rural residents. The Workgroup further refined these prioritizations in Webinar 2.

NQF staff then developed a tiered weighting system that reflected the Workgroup's overarching measure selection criteria (tier 1: measures that are NQF-endorsed, resistant to the low case-volume challenge, cross-cutting, and address transitions of care) and its priorities for specific topics and conditions (tiers 2-4; see the Table below). The tiering and weighting of the prioritized topics and conditions reflect the Workgroup's view of the relatively greater importance of including—as part of a core set of measures designed for rural providers—measures for mental health, substance abuse, and medication reconciliation over those addressing relevant chronic conditions or service-specific topic

areas. The tiering also reflects the Workgroup's assessment of the relative importance of the conditions or topics within the tiers: namely, that the Workgroup did not prioritize, for example, diabetes over hypertension or perinatal services over pediatric services.

**Tiered Selection Criteria and Weights Used to Assign Measure Scores**

| Tier | Selection criteria applied to relevant NQF-endorsed measures | Weight |
|---|---|---|
| **Tier 1** | Cross-cutting | 25% |
| | Resistant to the low case-volume challenge | 25% |
| | Transitions of care | 20% |
| **Tier 2** | • Mental health<br>• Substance abuse<br>• Medication reconciliation | 15% |
| **Tier 3** | • Diabetes<br>• Hypertension<br>• Chronic obstructive pulmonary disease (COPD) | 10% |
| **Tier 4** | • Readmissions<br>• Perinatal<br>• Pediatrics | 5% |

NQF staff used the above weighting system to assign a numeric score to each measure. To obtain a score for each measure, staff first tagged each measure with a "1" or "0" to indicate whether or not the measure is cross-cutting or resistant to low case-volume, assesses transitions of care, or reflects conditions or topics included in tiers 2, 3, or 4. Staff then calculated a score for each measure using the percentage weights noted in the Table above. Measures could be included in multiple tiers (e.g., the measure assessing well-child visits for children ages 3-6 was tagged as cross-cutting, resistant to low case-volume, and included in Tier 4 as a pediatrics measure). Theoretically, scores could range from 0 to 1; however, no measures were tagged for all four tiers, and the highest score across the 444 measures was 0.70. Only two care transitions measures, which were also tagged as cross-cutting and resistant to low case-volume (NQF #0291 *Emergency Transfer Communication Measure* and NQF #0228 *3-Item Care Transition Measure*), received this high score.

Of the 608 measures that were NQF-endorsed as of January 2018, 444 (or 73 percent) met the requirements for a rural-relevant draft core set in terms of care setting and level of analysis. Of these, 284 (or 64 percent) had a nonzero score, indicating that they addressed at least one of the Workgroup's major selection criteria or priority topics/conditions. Staff used the 75th percentile of the nonzero scores (≥0.50) as a cut-point to further narrow the list of measures to those that most closely reflected the preferences of the Workgroup (i.e., a higher score indicates that a particular measure addresses more and/or more preferred selection criteria of the Workgroup). This step resulted in 119 measures. The 75th percentile cut-point (which was also the 90th percentile) was chosen arbitrarily as a way to winnow down the number of measures to a more manageable set without being too restrictive.

One strength of the tiered weighting approach to identify measures for potential inclusion in the core set was that it reflects, in a reasonably simple format, the importance of the various selection criteria as determined by the Workgroup. The 0/1 tagging of the measures for the four tiers made the arbitrary nature of the specific weights used to calculate the scores less important; that is, for the most part, the relative rankings of the measures were invariant to small changes in the actual weights, as long as the weights reflected the tiering structure with lower tiers having higher weights. The major limitation of the tiered approach was the lack of variation in the scores (i.e., there were only 14 distinct scores across the 444 measures). Thus, while this scoring approach did help to identify measures that were not of great interest to the Workgroup, it was not specific enough to narrow the list of measures as much as was initially hoped. The approach may have worked better if the selection criteria had been different.

## Qualitative Process for Selecting Core Set Measures

After reviewing the top-scoring 119 measures, staff identified a "strawman" draft core set of 44 measures for initial Workgroup consideration. This staff selection was based on earlier discussions with the Workgroup as well as information gleaned from NQF's 2015 Rural Health Project (e.g., including a particular measure that was previously named as a core measure for rural health clinics). In its third webinar, as the Workgroup considered the initial 44-measure "strawman" set, members identified several additional themes to consider as it continued to refine its recommendations for a core set of rural-relevant measures:

- **Ease and cost of data collection**. Workgroup members noted that rural providers may have differing resources (e.g., human, IT, etc.) for collecting and reporting measure data, and core set measures therefore must be feasible for the majority of rural providers.
- **Use in federal or other programs**. The Workgroup suggested considering use of measures in federal or other programs as a way to align measures across various programs. NQF staff had previously identified measures currently in use in CMS quality reporting and value-based purchasing programs, but Workgroup members may know of other users of particular measures.
- **Consideration of potential unintended consequences.** The Workgroup agreed that potential unintended consequences to rural residents and providers should be assessed as part of identifying the core set of measures.
- **Balancing measure types**. Members inquired as to the balance of the measure types included in the strawman core set and suggested that outcome measures should receive a higher rating than types of measures, particularly given CMS' preferences for outcome measures and some members' preference for outcome measures that reflect the patient voice (i.e., measures based on patient-reported outcomes).
- **Consideration of the set and its ability to describe the overall quality of the measured entity**. Workgroup members noted that as it get closer to finalizing the core set of measures, the Workgroup should consider whether the set, in its entirety, adequately addresses the quality of the spectrum of care provided to rural residents in hospital and ambulatory settings.

Because of project time constraints, staff did not try to tag and re-score measures based on the above themes. Instead, immediately following the webinar, staff asked Workgroup members to identify up to five additional measures that they would like to consider for inclusion in the draft core set, beyond the

44 measures in the "strawman" draft core set. They were free to choose any of the 444 endorsed measures, regardless of its priority score. Workgroup members identified 30 additional measures to consider for inclusion in the draft core, bringing the total up to 74 measures for further detailed consideration (Appendix F). While we did not require members to provide a rationale for their choice, several noted their desire to consider additional outcome, screening, cost, pediatrics, and/or medication-specific measures.

Staff then asked the Workgroup to review this second iteration of a 74-measure draft core set, this time indicating the desire to include each measure (responses were yes/no/maybe) and providing feedback on concerns raised in Webinar 3 regarding ease of use/feasibility for rural providers, potential for unintended consequences, and current use of measures in quality improvement or accountability programs. NQF also asked the Workgroup to note any other overall concerns or comments about the measures.

### *Consensus Agreement Exercise*

Over the course of two webinars in February and March 2018, the Workgroup engaged in an in-depth discussion of the 74 measures, with the dual purpose of narrowing down the number of draft core set measures and providing a rationale for inclusion or exclusion. The Workgroup reviewed measures grouped by condition or topic, and from each group, selected the measures determined to be most appropriate for a core set of rural-relevant measures. NQF did not provide additional data to the Workgroup for this stage of the selection process; instead, the Workgroup's decisions were based on its collective experience, expertise, and knowledge about the measures under consideration. The Workgroup considered the following questions in its deliberation:

- Is the measure susceptible to low case-volume?
- Is the measure "topped out" (i.e., has little room for further improvement), or would it likely be topped out soon?
- Is the measure risk-adjusted appropriately for rural providers?
- Would the data collection burden outweigh the benefit of the measure for rural residents and providers?
- Will the measure affect patient health outcomes in a meaningful way?
- Are there potential unintended consequences associated with the measure for rural residents or providers?
- Does the measure assess care for the appropriate entities (i.e., at either the facility level of analysis for measures used in a hospital setting or at a clinician level of analysis for measures used in an ambulatory setting)?

A summary of the Workgroup's rationale for inclusion or exclusion of the 74 measures is presented in Appendix F.

## Appendix F: All Measures Considered for the Draft Core Set

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 1598 Total Resource Use Population-based PMPM Index | Cost/Resource Use | Yes | Yes | No | Did not recommend because costs may be less in the control of rural providers compared with nonrural providers, particularly for providers who are not part of an integrated system, have access to group purchasing organizations, or who lack access to lower cost treatment options |
| 1604 Total Cost of Care Population-based PMPM Index | Cost/Resource Use | Yes | Yes | No | Did not recommend because costs may be less in the control of rural providers compared with nonrural providers, particularly for providers who are not part of an integrated system, have access to group purchasing organizations, or who lack access to lower cost treatment options |
| 0059 Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) | Diabetes | No | Yes | No | Captures important aspect of care, patient's degree of control of diabetes |
| 0729 Optimal Diabetes Care | Diabetes | No | Yes | No | Captures overall clinical management |
| 2363 Glycemic Control - Hypoglycemia | Diabetes | No | Yes | No | Did not recommend because of potential data collection challenges and because it has not been proposed for inclusion in the CMS Inpatient Quality Reporting program |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0495 Median Time from ED Arrival to ED Departure for Admitted ED Patients | Emergency Department Timing | Yes | Yes | No | Did not recommend since the measure is more relevant for overcrowded urban emergency rooms than for rural facilities, where overcrowding is not as much of an issue |
| 0496 Median Time from ED Arrival to ED Departure for Discharged ED Patients | Emergency Department Timing | Yes | Yes | No | Did not recommend since the measure is more relevant for overcrowded urban emergency rooms than for rural facilities, where overcrowding is not as much of an issue |
| 0497 Admit Decision Time to ED Departure Time for Admitted Patients | Emergency Department Timing | Yes | Yes | No | Did not recommend since the measure is more relevant for overcrowded urban emergency rooms than for rural facilities, where overcrowding is not as much of an issue |
| 0005 CAHPS Clinician & Group Surveys (CG-CAHPS)-Adult, Child | Experience with Care | Yes | Yes | No | Important to capture patient experience in outpatient setting<br><br>Noted the burden of collecting data for the measures and recommended CMS consider allowing data for the measures to be collected electronically to reduce burden and encourage more participation |
| 0166 HCAHPS | Experience with Care | Yes | Yes | No | Important to capture patient experience in inpatient setting<br><br>Noted the burden of collecting data for the measures and recommended CMS consider allowing data for the measures to be collected electronically to reduce burden and encourage more participation |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 2548 Child Hospital CAHPS (HCAHPS) | Experience with Care | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure | Healthcare Associated Infections | Yes | Yes | No | Targets the most common hospital infection, and therefore likely resistant to low case-volume |
| 0139 National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure | Healthcare Associated Infections | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 1716 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure | Healthcare Associated Infections | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 1717 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure | Healthcare Associated Infections | Yes | Yes | No | Targets a common hospital infection, and therefore likely resistant to low case-volume. |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0038 Childhood Immunization Status (CIS) | Immunization | Yes | Yes | No | Good measure-preventative care<br><br>Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| 0041 Preventive Care and Screening: Influenza Immunization | Immunization | Yes | Yes | No | Noted that although immunizations are administered through sources other than the primary care office, agreed that this does not relieve the provider of the responsibility of asking about immunization |
| 0431 Influenza Vaccination Coverage Among Healthcare Personnel | Immunization | Yes | Yes | No | Did not recommend due to preference for measures looking at immunization rates for patients, not healthcare professionals |
| 1407 Immunizations for Adolescents | Immunization | Yes | Yes | No | Did not recommend due to a preference for an overall immunization measure for all age groups |
| 1659 Influenza Immunization | Immunization | Yes | Yes | No | Did not recommend because of a preference for a measure with a clinician level of analysis over one in which a hospital is the accountable entity, seeing clinician-level accountability as supporting preventive care and a population-based approach to health |
| 0022 Use of High-Risk Medications in the Elderly (DAE) | Medication Reconciliation | Yes | Yes | No | Did not recommend since it is not endorsed at either the facility or clinician levels of analysis |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0097 Medication Reconciliation Post-Discharge | Medication Reconciliation | Yes | Yes | No | Important because medication errors during transitions of care is a common patient safety problem |
| 0419 Documentation of Current Medications in the Medical Record | Medication Reconciliation | Yes | Yes | No | Did not recommend due to perceived limited room for improvement in performance |
| 0553 Care for Older Adults (COA) – Medication Review | Medication Reconciliation | Yes | Yes | No | Did not recommend since it is not endorsed at either the facility or clinician levels of analysis |
| 2456 Medication Reconciliation: Number of Unintentional Medication Discrepancies per Patient | Medication Reconciliation | Yes | Yes | No | Did not recommend because of preference for other medication reconciliation measures on the list and concerns about data collection burden |
| 0418 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan | Mental Health (Depression) | Yes | Yes | No | Important aspect of care to capture, is not overly resource dependent<br><br>When comparing against a similar measure with 12-month time period, group preferred more immediate six-month timeframe |
| 0418e Preventive Care and Screening: Screening for Depression and Follow-Up Plan | Mental Health (Depression) | Yes | Yes | No | Did not recommend over concerns of potential difficulties due to the data source and data availability in EHRs |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0710 Depression Remission at Twelve Months | Mental Health (Depression) | No | Yes | No | Did not recommend because when compared to similar measure with a six-month time period, group preferred more immediate six-month timeframe |
| 0711 Depression Remission at Six Months | Mental Health (Depression) | No | Yes | No | Important outcome measure<br><br>When comparing against a similar measure with 12-month time period, group preferred more immediate six-month timeframe |
| 1885 Depression Response at Twelve Months - Progress Towards Remission | Mental Health (Depression) | No | Yes | No | Did not recommend, decided that another outcome measure, 0711, was more meaningful |
| 0018 Controlling High Blood Pressure | Other - Hypertension | No | Yes | No | Important outcome measure<br><br>When comparing against a similar measure with 12-month time period, group preferred more immediate six-month timeframe |
| 0439 STK-06: Discharged on Statin Medication | Other - Neuro - Stroke/TIA | No | Yes | No | Did not recommend because it is not cross-cutting |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0661 Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients who Received Head CT or MRI Scan Interpretation within 45 minutes of ED Arrival | Other - Neuro - Stroke/TIA | No | Yes | No | Did not recommend because CT scans often are read (by radiologists or neurologists, not family physicians) and noted that the availability of teleradiology services in rural areas may affect performance on this measure |
| 2455 Heart Failure: Post-Discharge Appointment for Heart Failure Patients | Other -Heart Failure | No | Yes | No | Did not recommend because it is not cross-cutting |
| 0326 Advance Care Plan | Palliative | Yes | Yes | No | Considering older demographic of rural population, it is an important aspect of end-of-life care to capture |
| 0420 Pain Assessment and Follow-Up | Palliative | Yes | Yes | No | Did not recommend because of concerns about a risk of opioid dependence |
| 1641 Hospice and Palliative Care – Treatment Preferences | Palliative | Yes | Yes | No | Did not recommend because although it is an important aspect of care it does not belong in the limited core set |
| 0371 Venous Thromboembolism Prophylaxis | Patient Safety | Yes | Yes | No | There are many risk factors for VTE and numerous hospital units in which it can occur; the incidence and seriousness of unattended outcomes warrant the measure |
| 0531 Patient Safety for Selected Indicators (modified version of PSI90) | Patient Safety | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0709 Proportion of Patients with a Chronic Condition That Have a Potentially Avoidable Complication During a Calendar Year | Patient Safety | Yes | Yes | No | Did not recommend due to reporting burden |
| 1550 Hospital-Level Risk-Standardized Complication Rate (RSCR) Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) | Patient Safety | No | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 2720 National Healthcare Safety Network (NHSN) Antimicrobial Use Measure | Patient Safety | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 0101 Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls | Patient Safety - Falls | Yes | Yes | No | Did not recommend due to perceived limited room for improvement in performance |
| 0141 Patient Fall Rate | Patient Safety - Falls | Yes | Yes | No | Did not recommend; preferred a similar measure 0202 |
| 0202 Falls with injury | Patient Safety - Falls | Yes | Yes | No | Important to measure since inpatient falls can result in injury, leading to increased morbidity and mortality |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0024 Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC) | Pediatric Care | Yes | Yes | No | Important measure for the pediatric population<br><br>Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| 0047 Asthma: Pharmacologic Therapy for Persistent Asthma | Pediatric Care | No | No | No | Did not recommend; preferred to include pediatric weight assessment measure 0024 |
| 1392 Well-Child Visits in the First 15 Months of Life | Pediatric Care | Yes | Yes | No | Did not recommend; preferred measures that cover children of all ages |
| 1516 Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life | Pediatric Care | Yes | Yes | No | Did not recommend over concerns about data collection over such a long period |
| 0469 PC-01 Elective Delivery | Perinatal Care | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 0471 PC-02 Cesarean Birth | Perinatal Care | Yes | Yes | No | Rural areas have a limited number of OB providers, but it is important to focus on best practices in obstetric care including a reduction in cesarean section deliveries |
| 0476 PC-03 Antenatal Steroids | Perinatal Care | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 2903 Contraceptive Care – Most & Moderately Effective Methods | Perinatal Care | Yes | Yes | No | Important aspect of care |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0533 Postoperative Respiratory Failure Rate (PSI 11) | Post-Procedure Outcomes | Yes | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy | Post-Procedure Outcomes | No | No | No | Did not recommend because of concerns over low case-volume issue |
| 2877 Hybrid Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) Following Acute Ischemic Stroke Hospitalization with Risk Adjustment for Stroke Severity | Post-Procedure Outcomes | No | Yes | No | Did not recommend because of concerns over low case-volume issue |
| 1789 Hospital-Wide All-Cause Unplanned Readmission Measure (HWR) | Readmission | Yes | Yes | No | Currently being used for acute care hospitals, and inclusion in the core set would allow rural hospitals to compare to hospitals nationwide<br><br>Workgroup is concerned about the volume issues and the risk adjustment methodology used in the measure |
| 2393 Pediatric All-Condition Readmission Measure | Readmission | Yes | Yes | No | Did not recommend because pediatric hospitalizations are rare and readmissions even rarer, and concern that many rural hospitals do not have the volume to report on this measure |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 0032 Cervical Cancer Screening (CCS) | Screening | Yes | Yes | No | Strong support to include at least one cancer screening measure in the core set<br><br>Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| 0034 Colorectal Cancer Screening (COL) | Screening | Yes | Yes | No | Strong support to include at least one cancer screening measure in the core set<br><br>Of the three cancer screening measures considered, this one had the most support of the Workgroup<br><br>Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| 0421 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up | Screening | Yes | Yes | No | Addresses critical issue in rural healthcare |
| 2372 Breast Cancer Screening | Screening | Yes | Yes | No | Strong support to include at least one cancer screening measure in the core set<br><br>Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis |
| 0004 Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET) | Substance Abuse | No | No | No | Did not recommend since it is not endorsed at either the facility or clinician levels of analysis |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 1661 SUB-1 Alcohol Use Screening | Substance Abuse | Yes | Yes | No | Important to include a measure that screens for alcohol use or abuse at the clinician and facility levels of analysis; 1661 assessed at the facility level |
| 2152 Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling | Substance Abuse | Yes | Yes | No | Important to include a measure that screens for alcohol use/ abuse at the clinician and facility levels of analysis; 2152 assessed at the clinician level |
| 2940 Use of Opioids at High Dosage in Persons Without Cancer | Substance Abuse | Yes | Yes | No | Did not recommend since it is not endorsed at either the facility or clinician levels of analysis |
| 1664 SUB-3 Alcohol & Other Drug Use Disorder Treatment Provided or Offered at Discharge and SUB-3a Alcohol & Other Drug Use Disorder Treatment at Discharge | Substance Abuse | No | Yes | No | Did not recommend because of a preference for substance abuse screening measures in the core set |
| 0028 Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention | Substance Abuse - Tobacco | Yes | Yes | No | Measure contains two important components to care: screening for tobacco use and if the individual screens positive, offering treatment |
| 1651 TOB-1 Tobacco Use Screening | Substance Abuse - Tobacco | Yes | Yes | No | Did not recommend because of doubt that the measures of tobacco screening or treatment done during or just after a hospitalization would have a lasting effect |

| NQF # and measure title | Condition/topic | Cross-cutting | Resistant to Low case-volume | Transitions of care | Additional rationale for inclusion/exclusion |
|---|---|---|---|---|---|
| 1656 TOB-3 Tobacco Use Treatment Provided or Offered at Discharge and the subset measure TOB-3a Tobacco Use Treatment at Discharge | Substance Abuse - Tobacco | No | Yes | No | Did not recommend because of doubt that the measures of tobacco screening or treatment done during or just after a hospitalization would have a lasting effect |
| 2803 Tobacco Use and Help with Quitting Among Adolescents | Substance Abuse - Tobacco | Yes | Yes | No | Did not recommend because it captures too narrow a population |
| 0228 3-Item Care Transition Measure (CTM-3) | Transitions | Yes | Yes | Yes | Did not to recommend because it may be included as part of the measure set derived from HCAHPS responses and therefore potentially duplicative |
| 0290 Median Time to Transfer to Another Facility for Acute Coronary Intervention | Transitions | No | Yes | Yes | Did not recommend because in rural settings there may be issues such as weather that will cause unavoidable delays in transfer time |
| 0291 Emergency Transfer Communication Measure | Transitions | Yes | Yes | Yes | In rural settings, there may be issues (e.g., weather) that will cause unavoidable delays in transfer time, so measures related to transfer time are not appropriate, but communication around transfer is important to measure |

## Appendix G: Draft Core Set of Rural-Relevant Measures: Alignment with Selected Reporting Programs

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 0059 Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) | Diabetes | Outcome | Medicaid (Implemented); Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | Primary Care (PCMH); Primary Care (ACO) | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |
| 0729 Optimal Diabetes Care | Diabetes | Composite | Physician Compare (Implemented) | | | |
| 0005 CAHPS Clinician & Group Surveys (CG-CAHPS)- Adult, Child | Experience with Care | Outcome: PRO-PM | Merit-Based Incentive Payment System (MIPS) Program (Finalized); Physician Compare (Implemented); Physician Feedback/Quality Resource Use Report (Implemented); Physician Value-Based Payment Modifier (Implemented) | Primary Care (PCMH); Primary Care (ACO) | | High Sierras – Northern Plains ACO (NOTE: Doesn't specify what type) |
| 0166 HCAHPS | Experience with Care | Outcome | Hospital Compare (Implemented); Hospital Inpatient Quality Reporting (Implemented); Hospital Value-Based Purchasing (Implemented); Prospective Payment System-Exempt Cancer Hospital Quality Reporting (Implemented) | | Core MBQIP Measures | |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 0138 National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure | Healthcare Associated Infections (HAI) | Outcome | Hospital Acquired Condition Reduction Program (Implemented); Hospital Inpatient Quality Reporting (Implemented); Inpatient Rehabilitation Facility Quality Reporting (Implemented); Long-Term Care Hospital Quality Reporting (Implemented) | | Additional MBQIP | |
| 1717 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure | Healthcare Associated Infections (HAI) | Outcome | Hospital Acquired Condition Reduction Program (Implemented); Hospital Compare (Implemented); Hospital Inpatient Quality Reporting (Implemented); Hospital Value-Based Purchasing (Implemented); Inpatient Rehabilitation Facility Quality Reporting (Implemented); Long-Term Care Hospital Quality Reporting (Implemented); Prospective Payment System-Exempt Cancer Hospital Quality Reporting (Implemented) | | Additional MBQIP | |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| *0038 Childhood Immunization Status (CIS) | Immunization | Process | Physician Feedback/Quality Resource Use Report (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicaid (Implemented); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented) | Pediatric (ACO) | | UDS Clinical Performance Measures |
| 0041 Preventive Care and Screening: Influenza Immunization | Immunization | Process | Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | | | High Sierras – Northern Plains ACO |
| 0097 Medication Reconciliation Post-Discharge | Medication: Use, Review, and Reconciliation | Process | Physician Compare (Implemented); Physician Feedback/Quality Resource Use Report (Implemented);Physician Value-Based Payment Modifier (Implemented); Medicare Shared Savings Program (Implemented);Merit-Based Incentive Payment System (MIPS) Program (Finalized) | Primary Care (ACO) | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 0418 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan | Mental Health (Depression) | Process | Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicaid (Implemented); Medicare Shared Savings Program (Implemented) | | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |
| 0711 Depression Remission at Six Months | Mental Health (Depression) | Outcome: PRO-PM | Physician Feedback/Quality Resource Use Report (Implemented); Physician Value-Based Payment Modifier (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | | | |
| *0018 Controlling High Blood Pressure | Other | Outcome | Medicaid (Implemented); Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicare Part C Star Rating (Implemented) | Primary Care (PCMH); Primary Care (ACO); Cardiovascular | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 0326 Advance Care Plan | Palliative | Process | Home Health Value Based Purchasing (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Physician Feedback/Quality Resource Use Report (Implemented); Physician Value-Based Payment Modifier (Implemented) | | | |
| 0371 Venous Thromboembolism Prophylaxis | Patient Safety | Process | Medicare and Medicaid Electronic Health Record Incentive Program for Hospitals and Critical Access Hospitals (Implemented) | | | |
| 0202 Falls with injury | Patient Safety - Falls | Outcome | | | Additional MBQIP | |
| *0024 Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC) | Pediatrics | Process | Medicaid (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented) | Pediatric (ACO); Pediatric (PCMH) | | UDS Clinical Performance Measures |
| 0471 PC-02 Cesarean Birth | Perinatal | Outcome | Medicaid (Implemented) | OB/GYN (Hospital/Acute) | | |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 2903 Contraceptive Care – Most & Moderately Effective Methods | Perinatal | Outcome: Intermediate Clinical Outcome | Medicaid (Implemented) | | | |
| ^1789 Hospital-Wide All-Cause Unplanned Readmission Measure (HWR) | Readmission | Outcome | Hospital Compare (Implemented); Hospital Inpatient Quality Reporting (Implemented); Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Physician Value-Based Payment Modifier (Implemented) | | | |
| *0032 Cervical Cancer Screening (CCS) | Screening | Process | Merit-Based Incentive Payment System (MIPS) Program (Finalized); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicaid (Implemented); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented) | Primary Care (PCMH); Primary Care (ACO); OB/GYN (Amb) | | UDS Clinical Performance Measures |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| *0034 Colorectal Cancer Screening (COL) | Screening | Process | Medicare Part C Star Rating (Implemented); Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented) | Primary Care (PCMH); Primary Care (ACO) | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |
| 0421 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up | Screening | Process | Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | Primary Care (PCMH); Primary Care (ACO) | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |
| *2372 Breast Cancer Screening | Screening | Process | Medicare Part C Star Rating (Implemented); Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicaid (Implemented); Qualified Health Plan (QHP) Quality Rating System (QRS) (Implemented) | Primary Care (PCMH); Primary Care (ACO); OB/GYN (Amb) | | High Sierras – Northern Plains ACO |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 1661 SUB-1 Alcohol Use Screening | Substance Use - Alcohol, Other Drugs | Process | Hospital Compare (Implemented); Inpatient Psychiatric Facility Quality Reporting (Implemented); Physician Value-Based Payment Modifier (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized); Medicare Shared Savings Program (Implemented) | | | |
| 2152 Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling | Substance Use - Alcohol, Other Drugs | Process | Physician Feedback/Quality Resource Use Report (Implemented); Physician Value-Based Payment Modifier (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | | | |
| 0028 Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention | Substance Use - Tobacco | Process | Medicare Shared Savings Program (Implemented); Merit-Based Incentive Payment System (MIPS) Program (Finalized) | Primary Care (PCMH); Primary Care (ACO); Cardiovascular | | High Sierras – Northern Plains ACO, UDS Clinical Performance Measures |

| Measure | Category | Measure Type | Federal Programs | Core Quality Measures Collaborative | Medicare Beneficiary Quality Improvement Project (MBQIP) | Other Programs |
|---|---|---|---|---|---|---|
| 0291 Emergency Transfer Communication Measure | Transitions | Process | | | Core MBQIP Measures | |

* Workgroup members agree with the concept, but this measure is specified at integrated delivery system level.

^ Further discussion is required to come to agreement.