MEASURE APPLICATIONS PARTNERSHIP

A Core Set of Rural-Relevant Measures and Measuring and Improving Access to Care: 2018 Recommendations from the MAP Rural Health Workgroup

FINAL REPORT

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NATIONAL QUALITY FORUM

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EXECUTIVE SUMMARY

More than 59 million individuals—approximately 19 percent of the U.S. population—live in rural areas.[1] Data 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 residents 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] They 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**. Workgroup membership reflects the diversity of rural providers and residents and thus includes the perspectives of those most affected by, 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.

Between November 2017 and July 2018, 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 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. The MAP Coordinating Committee approved the Workgroup's recommendations in August 2018.

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 then used 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, to finalize the core set.

The 20 measures in the 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**). However, the Workgroup, for the most part, did not make specific recommendations for use. While many of the measures identified for the core set generally may be suitable for use in CMS hospital inpatient and outpatient quality reporting programs and in CMS clinician-focused quality reporting programs, the Workgroup did not seek to select measures for any particular CMS program, current or future. The Workgroup also identified seven measures that address highly relevant aspects of care for rural communities and providers in the ambulatory setting but are specified and endorsed to assess quality of care provided by health plans and integrated delivery systems (see **Table 3**).

As the Workgroup identified 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 for additional exploration, the Workgroup overwhelmingly chose access to care. The Workgroup focused its efforts on identifying those aspects of access—availability, accessibility, and affordability—that are particularly relevant to rural residents, 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 core set of measures, catalogs the core set of measures along with the rationale for inclusion for each measure, summarizes measurement gap areas identified by the Workgroup, and presents the Workgroup's recommendations on access to care from a rural perspective.

INTRODUCTION

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, which advises the MAP Coordinating Committee, comprises 18 organizational members, seven subject matter experts, and three federal liaisons. The MAP Rural Health Workgroup membership reflects the diversity of rural providers and residents and thus includes the perspectives of those most affected by, and most knowledgeable about, rural measurement challenges and potential solutions. The setting-specific MAP Workgroups and Coordinating Committee can use input from this Workgroup to better understand and consider measurement challenges faced by rural providers, including the limitations of current or proposed measures.

Between November 2017 and July 2018, 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 MAP Coordinating Committee approved the Workgroup's recommendations in August 2018.

The first task addressed two recommendations of an HHS-funded multistakeholder Rural Health Committee that NQF convened in 2015 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 (1) developed an initial set of guiding principles to be used when selecting rural-relevant measures and (2) 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 developing 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.

In addition to identifying a core set of measures, the Workgroup was charged with addressing a rural-relevant measurement topic. As the Workgroup identified 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 to explore, 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.

The remainder of this report is organized into five major sections. The first provides a brief overview of relevant aspects of rural America, introduces recent CMS initiatives that address issues related to rural health, and summarizes three previous NQF projects that informed the Workgroup's efforts. The next section briefly describes the selection criteria and processes used by the Workgroup to generate the core set of measures. It catalogs the core set of measures and summarizes the rationale behind the inclusion of each measure. The following section describes gaps in measurement 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 concludes the report and offers potential next steps for the MAP Rural Health Workgroup.

Several appendices provide additional details relevant to this work. **Appendix A** includes additional 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 additional detail about the process used by the Workgroup to identify measures for the core set. **Appendix F** lists all of the measures that the Workgroup considered in depth for potential inclusion in the core set. **Appendix G** shows how measures in the core set align with measures used in selected reporting or payment programs. **Appendix H** includes all public comments received by NQF on the draft version of this report.

BACKGROUND AND CONTEXT

More than 59 million individuals—approximately 19 percent of the U.S. population—live in rural areas.[1] Data 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 residents 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] They 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, in 2016, CMS established an agency-wide Rural Health (RH) Council.[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

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 included in this initiative.

Most 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.[10] The strategy is intended to help CMS in its drive to ensure equitable health 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 second and third objectives of the strategy through its consideration of access to care.

Prior NQF Activities that Informed the MAP Rural Health Workgroup

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

Performance Measurement for Rural Providers

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 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 clinical practices—particularly those in geographically isolated areas. Thus, these providers 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 rural areas, such as variations in geography, population density, availability of healthcare services, and numbers of vulnerable residents (e.g., those with economic or other social disadvantages, those in poor health, etc.), has particular implications for healthcare performance measurement. These include 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 challenges, these challenges may have greater impact on quality measurement and improvement activities in rural areas.

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—in the case of Critical Access Hospitals (CAHs)—participate only on a voluntary basis. Thus, many rural providers may have limited experience in collecting data and reporting on healthcare performance measures. Also, claims-based performance measures may not yield valid results for those rural providers who do not rely on claims-based reimbursements, as these providers may not submit comprehensive data on their claims.

The Committee's overarching recommendation to CMS was to integrate rural healthcare providers into federal quality programs.[11] 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, 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.

Roadmap for Promoting Health Equity and Eliminating Disparities

With funding from HHS, NQF convenes a separate multistakeholder Disparities Committee to provide recommendations on how performance measurement and its associated policy levers can be used to reduce disparities in health and healthcare.[12] Using several medical 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.

Framework to Support Measure Development for Telehealth

NQF also convened another HHS-funded multistakeholder Committee to recommend various methods to measure the use of telehealth as a means of providing care.[13] 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, which is supported by three subdomains: access for patient, family, and/or caregiver; access for the care team; and access to information. The Committee recommended that five components of access to telehealth (i.e., affordability, availability, accessibility, accommodation, and acceptability) be considered across the three 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. However, the Workgroup, for the most part, did not make specific recommendations for use. While the measures identified for the core set may be suitable for use in CMS hospital inpatient and outpatient quality reporting programs and in CMS clinician-focused quality reporting programs, the Workgroup did not seek to select measures for any particular CMS program, current or future. Nonetheless, the core set should be considered a tool to promote alignment across the public and private sectors. Those charged with identifying measures for use (public payers, private plans, etc.) should consider selecting measures from the core set to ensure alignment in addressing quality issues that most affect rural residents. Importantly, in its review of the core set, the MAP Coordinating Committee emphasized the importance of ensuring the appropriateness of program design and incentives before implementing the measures in the core set for pay for performance.

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 20 measures for the core set, along with seven additional measures for the ambulatory setting that are specified and endorsed to assess quality of care provided by health plans and integrated delivery systems.

The sections below describe the Workgroup's measure selection criteria, summarize key steps of the measure selection process, and list the measures recommended by the Workgroup for the core set.

Measure Selection Criteria

To determine criteria for selecting measures for the 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-endorsed 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. Note that for the purposes of this project, resistance to low case-volume is considered primarily in terms of the size of the measure "denominator" (i.e., the total number of individuals included in the measure). Thus, measures considered resistant to low case-volume may still have a small number of patients in the "numerator," and thus not meet reporting requirements for some programs.

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:

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. The Workgroup was particularly interested in measures of medication reconciliation because it 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 amenable 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 core set of measures included a quantitative component along with iterative qualitative evaluations and consensus-building exercises and discussions (see **Appendix E** for complete details of the measure selection process).

NQF staff began the quantitative process for selecting 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" 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 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 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 Core Set of Rural-Relevant Measures

The Workgroup recommended 20 measures for the core set: nine for the hospital setting and 11 for the ambulatory setting. In general, the measures recommended by the Workgroup for the core set align with the recommendations made by NQF's 2015 Rural Health Committee. For example, the number of proposed measures aligns with the recommended range of 10-20 measures per setting. 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 core set includes process and outcome measures, including measures based on patient report.

Finally, measures in the core set align with those used in other federal quality programs.

The Workgroup also identified an additional seven 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, weight assessment and related counseling for adolescents; contraceptive care). However, these measures have been specified to assess quality of care provided by health plans and integrated delivery systems and currently 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).

The Workgroup was of two minds regarding these additional measures: It had 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, and are not NQF-endorsed, for clinician-level accountability. Workgroup members noted that six of the seven measures are included in the CMS MIPS program for clinician-level accountability and have been adapted by others for regional transparency and accountability purposes at the clinician group level. 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.

NQF recommends that users of these measures work with the relevant measure stewards to determine the suitability of these measures for assessing care provided by individual clinicians or clinician groups 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. Tables 1 and 2 list the core-set measures by setting, and Table 3 lists the additional measures that apply to the ambulatory setting but are endorsed by NQF for health plan and/or integrated system accountability. The tables indicate how the measures meet the Workgroup's selection criteria and provide additional rationale for why the Workgroup selected these measures.

Core Set for the Hospital Setting

Each of the nine core-set measures that the Workgroup recommended for the hospital setting (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).

TABLE 1. 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	No	—	• Important to track and report measures of healthcare associated infections • Targets the most common hospital infection; therefore likely resistant to low case-volume for most rural hospitals
0166 HCAHPS [Note: includes 11 performance measures under this NQF number]	Yes	Yes	No	—	• Despite some concern about low case-volume for some hospitals, members agreed it is important to capture patient experience in the inpatient setting and thought these measures are the best available at this time • Noted the burden of collecting data for the measures and recommended CMS consider expanding electronic data capture options (e.g., via e-mail or smartphone applications) to reduce burden and encourage more participation
0202 Falls with injury	Yes	Yes	No	—	• Important to measure because inpatient falls can result in injury, leading to increased morbidity and mortality
0291 Emergency Transfer Communication Measure	Yes	Yes	Yes	—	• In rural areas, there may be issues (i.e., weather) that could cause unavoidable delays in transfer time; thus, measures related to transfer time may not be appropriate, but communication around transfer is important to measure
0371 Venous Thromboembolism Prophylaxis	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 inclusion of the measure in the core set • This measure applies to most hospitalized patients, not just surgical patients and includes both mechanical and pharmacologic prophylaxis; thus, low case-volume should not be an issue for most rural hospitals

NQF # and Measure Title	Cross-cutting	Resistant to Low Case-Volume	Transitions of Care	Addresses Priority Condition or Service	Additional Rationale for Inclusion
0471 PC-02 Cesarean Birth	Yes	Yes	No	Perinatal Care	• Although acknowledging that many rural hospitals do not provide obstetric care, Workgroup members underscored the importance of focusing on best practices in obstetric care in rural areas, including reducing cesarean section deliveries • The Workgroup noted the need for continued monitoring of this measure due to concerns regarding potential unintended consequences (e.g., loss of access to obstetric care due to poor performance on the measure)
1661 SUB-1 Alcohol Use Screening	Yes	Yes	No	Substance Abuse	• Overall interest in including screening measures in the core set, particularly for behavioral health • Workgroup wanted to include a measure that screens for alcohol use or abuse in both the hospital and ambulatory setting
1717 National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure	Yes	Yes	No	—	• Important to track and report measures of healthcare associated infections • Targets a common hospital infection, and therefore likely resistant to low case-volume

NQF # and Measure Title	Cross-cutting	Resistant to Low Case-Volume	Transitions of Care	Addresses Priority Condition or Service	Additional Rationale for Inclusion
1789 Hospital-Wide All-Cause Unplanned Readmission Measure (HWR)	Yes	Yes	No	Hospital Readmissions	• Currently being used for acute care hospitals, and inclusion in the core set would allow rural hospitals to compare to hospitals nationwide. • Commenters noted that the majority of Critical Access Hospitals meet the threshold number of cases for this measure • Workgroup members clarified that transferred patients are not included in the denominator of the measure (a concern for rural providers) • Acknowledged concerns with risk-adjustment and encouraged consideration of adjustment for social risk in future updates of the measure • Recommended that if a hospital does not have enough volume to report the measure, that hospital would not be assessed with this measure or otherwise penalized due to inability to report the measure

— = not applicable

In their discussion of the core-set measures for the hospital setting, the MAP Coordinating Committee offered the following feedback:

- Measure #0138 and #1717 (CAUTI and CDI). Data collection for these measures is labor intensive; users who select these measures should consider the need to balance data collection burden when selecting additional measures for their programs.
- Measure #0166 (HCAHPS measures). Concurring with the Workgroup's assessment, there may be a need for improved data collection methodologies to increase survey response rates. One member suggested that additional work may be needed to determine the minimum number of responses necessary to achieve reliable and valid results for rural providers.

In addition, the Coordinating Committee recognized the importance of substance use measures in the core set, as well as the impact of the opioid crisis on rural communities. Committee members noted there may be available measures addressing opioid use that could be added to the core set in the future.

Core Set for the Ambulatory Care Setting

Of the 11 measures that the Workgroup recommended for the core set for the ambulatory care setting (Table 2), eight 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). Seven of the recommended measures address several of the Workgroup's priority conditions or services, including diabetes, medication reconciliation, mental health, and substance use.

TABLE 2. 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 [NOTE: Includes 4 performance measures for Adult and 6 performance measures for Child under this NQF number]	Yes	Yes	No	—	• Important to capture patient experience in outpatient setting • Noted the burden of collecting data for the measures and recommended CMS consider expanding electronic data capture options (e.g., via e-mail or smartphone applications) to reduce burden and encourage more participation
0028 Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention	Yes	Yes	No	Substance Abuse	• Overall interest in including screening measures in the core set, particularly for behavioral health • This 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	No	—	• Members noted that although immunizations are administered through sources other than the primary care office, they 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	No	Diabetes	• Captures important aspect of care, patient's degree of control of diabetes • Even with the inclusion of #0729 in the core set, members believe this measure will provide specific insight into patients' degree of control of diabetes
0097 Medication Reconciliation Post-Discharge	Yes	Yes	No	Medication Reconciliation	• Although acknowledging the challenges in collecting data for this measure, Workgroup members agreed that medication reconciliation is important because medication errors during transitions of care are a common patient safety problem
0326 Advance Care Plan	Yes	Yes	No	—	• 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	No	Mental Health (depression screening)	• Overall interest in including screening measures in the core set, particularly for behavioral health • Important aspect of care to capture, is not overly resource dependent
0421 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up	Yes	Yes	No	—	• Overall interest in including screening measures in the core set, particularly for behavioral health • Addresses critical issue in rural healthcare, due to high prevalence of obesity
0711 Depression Remission at Six Months	No	Yes	No	Mental Health	• Desire for outcome measures in the core set • When comparing against a similar measure with 12-month time period, the Workgroup did not want to include both and preferred more immediate six-month timeframe
0729 Optimal Diabetes Care	No	Yes	No	Diabetes	• Although some Workgroup members do not like the all-or-none nature of this measure and some noted that some components of the measure are beyond the control of the clinician, they agreed that the measure, which captures overall clinical management of an important chronic condition, reflects what is best for patient care • In recommending the measure for inclusion in the core set, the Workgroup recommended that the measure only be used for quality or population health improvement and not for payment adjustment
2152 Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling	Yes	Yes	No	Substance Abuse	• Overall interest in including screening measures in the core set, particularly for behavioral health • Workgroup wanted to include a measure that screens for alcohol use or abuse in both the hospital and ambulatory setting

— = not applicable

In their discussion of the core set measures for the ambulatory setting, the MAP Coordinating Committee offered the following feedback:

- Measure #0711 (depression remission). Depression remission at six months may be a high bar and use of remission alone could have unintended consequences for patients. Specifically, the definition of remission on the PHQ-9 may not align with a patient's satisfaction with their improvement and could lead to increases in medication prescriptions that might be burdensome to the patient. Future measures of depression outcomes should consider assessing remission or meaningful improvement.

The Committee's comment regarding potential future addition of measures addressing opioid use also applies to the ambulatory setting.

Additional Measures for the Ambulatory Care Setting

During its deliberations, the Workgroup identified seven 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/or health plan levels of analysis. Six of these measures are considered cross-cutting, and all are resistant to low case-volume. Four of these measures address several of the Workgroup's priority conditions or services, including hypertension, pediatric care, and perinatal care.

TABLE 3. AMBULATORY CARE MEASURES SPECIFIED AND ENDORSED FOR HEALTH PLANS AND/OR INTEGRATED DELIVERY SYSTEMS

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	No	Hypertension	• Desire to include a measure assessing blood pressure control • 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	No	Pediatric Care	• Important measure for the pediatric population due to increases in childhood obesity • Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis
0032 Cervical Cancer Screening (CCS)	Yes	Yes	No	—	• Strong support to include at least one cancer screening measure in the core set • 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
0034 Colorectal Cancer Screening (COL)	Yes	Yes	No	—	• Strong support to include at least one cancer screening measure in the core set • Of the three cancer screening measures considered, this one had the most support from the Workgroup • Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis
0038 Childhood Immunization Status (CIS)	Yes	Yes	No	Pediatric Care	• Good measure-preventive care • Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis
2372 Breast Cancer Screening	Yes	Yes	No	—	• Strong support to include at least one cancer screening measure in the core set • Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis
2903 Contraceptive Care – Most & Moderately Effective Methods [NOTE: this measure is specified for facility, health plan, and state/ region levels of analysis]	Yes	Yes	No	Perinatal Care	• Reproductive care is an important aspect of care for women; contraception helps prevent teen and unintended pregnancy

— = not applicable

NOTE: Although these measures are 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.

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.

The Workgroup agreed with the prior Committee's assessment of measurement gaps for rural providers. In addition, focusing on a preliminary iteration of the core set that included 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 providers for factors beyond their control, such as increased wait time 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 by the Workgroup as part of its gaps analysis. Previous NQF reports have identified several NQF-endorsed measures as disparities sensitive, although the methodologies applied for those reports were not identical. In addition, those reports considered only selected subsets of NQF measures and focused primarily on racial and ethnic disparities and language. [12,14]

Differing Perceptions of Healthcare Value Among Patients and Providers

Members noted that patients and providers often value different things in healthcare. 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 in their own adherence to standards of care.[15] Members suggested that the core set include measures that address these different values.

Outcome Measures, Particularly Patient-Reported Outcomes

Some Workgroup members believed that the preliminary 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.

Risk-Adjustment

The Workgroup reiterated concerns about appropriate risk-adjustment for outcome measures that are 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 (e.g., payment penalties, loss of services) if inadequately adjusted measures are used in public reporting or payment programs.

Levels of Analysis

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, this also can be considered a gap in measurement.

Cost

The Workgroup agreed that the two cost measures initially considered for potential inclusion in the core set (#1598 and #1604, per-member per-month measures of total resource use and total cost) 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 options for treatment, 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.

Prioritizing Measurement Gaps

After discussion, the Workgroup prioritized measurement gaps areas from most to least important, as follows:

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

The Workgroup did not provide suggestions for specific cost or outcome measures to address the gaps in measurement. Of note, the Workgroup prioritized transition measures and substance abuse measures as gap areas, even though the core set of measures includes a transition measure (#0291, Table 1) and three substance abuse measures (#1661, Table 1; #0028 and #2152, Table 2).

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. 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 the core set of rural-relevant measures 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; and
- identifying ways to address those challenges.

The Workgroup carried out this work using the following assumptions:

Access and quality are intertwined and 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 often a strong determinant of quality.

Often in rural settings, there are limited resources, workforce shortages, and other complicating factors (e.g., distance, seasonality). This mandates attention to potential unintended consequences 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 time involved in the transfer increases the patient's wait time.

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 they 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 (e.g., availability of specialists within a certain geographic area). 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 also can challenge rural residents, regardless of distance to providers (although longer distances can worsen barriers to access when there is 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 improving 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 for some Medicaid programs, patients must travel to 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 telehealth services among rural patients in order to help them become more comfortable with the idea of obtaining healthcare via telehealth.

The Workgroup acknowledged the link between healthcare workforce shortages and reduced access to care in rural areas. 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, if appropriate), 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. Thus, 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. 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

Domain	Facets of Access	Challenges	Ways to address
Availability	Appointments: after hours or same day	• Schedules already full • Clinician burnout • Emergencies can take up empty appointment slots • May 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 • Increased use of team-based care and working "to the top of their license" • Educate patients about availability and abilities of nonphysician clinicians • Telehealth
	Access to specialty care	• Often not local	• Improve referral relationships • Broaden referral patterns • Telehealth
	Timeliness of care: time to next appointment (includes follow-up care); specialty care; PAC/LTC; nontraditional care	• Schedules already full • Distance can be a barrier • Recruiting difficulties create backlog • "Popular" providers (e.g., gender-based)	• Improve referral relationships • Strengthen care coordination with referral sites • Partner with support services (e.g., for transportation) • Telehealth
Accessibility	Language Interpretation	• Bilingual staff hard to recruit	• Tele-access to interpreters
	Health information	• Phone or internet connectivity • Provider's IT infrastructure doesn't support functionality such as patient portals	• Improve quality of information provided by insurer • Noted the ongoing expansion of remote access technology (e.g., cell phone applications; blood glucose monitors, etc.) and expanded capability of such technologies to communicate with patients
	Health literacy	• Lack of recognition that healthcare is a partnership between patients, families, and clinicians	• Educate providers about importance of patient engagement • Improve clinician-patient communication
	Transportation ("getting there")	• Fewer public options • Distance • Fewer family caregivers to help due to aging of the population	• Telehealth • Community partnerships
	Physical spaces	• Difficult and/or expensive to find or retrofit spaces • Meeting facility licensing requirements	• Consider licensing options, leasing and operations issues, and definitions of facility types

Domain	Facets of Access	Challenges	Ways to address
Affordability	Out-of-pocket costs	• Distance/transportation (and associated costs) may disproportionately affect rural residents	• Explore appropriateness of including distance as part of risk adjustment
	Delayed care due to out-of-pocket costs	• Insurance plan network inadequacy • Lack of insurance or underinsurance	• Continue to move from fee-for-service to value-based care • Continue efforts to preserve the nation's healthcare safety net • Medicaid expansion • Encourage providing care to the full extent of a provider's education and credentials • Monitor the balances that patients owe after insurance • Work to increase literacy about insurance

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. The MAP Coordinating Committee applauded the focus on access to care but recommended that access to behavioral healthcare also be addressed.

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 expand and fully realize team-based care. This could mean bringing additional nonphysician providers into the practice, as well as supporting nonphysicians in maximizing their scope of practice. 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 (e.g., by parsing patients into the panels of providers whose skills and credentials/licensure match the needs of individual patients). 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 not only greater collaboration across licensing jurisdictions due to changes in state licensing and credentialing processes but also legislative and/or regulatory intervention, 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, in some cases because they may believe that no other practitioner will have needed knowledge or skill to meet their care needs. Thus, practices, health plans, states, and national campaigns should educate consumers about the various types of qualified practitioners who are available and about the knowledge and

skills they have. These educational efforts should be as specific as possible about which types of clinicians can provide which types of care. Further, within each practice or group, provider-specific information should be provided when an individual clinician has gained additional skills though post-academic training or other experience. As one example, a rural physician can coordinate and manage overall care for a patient who needs specialized endocrinology care, but that specialized care may be better provided by a nonphysician whose training and experience brings a higher level of expertise in that area than that of the primary physician provider. At the facility or system level, it is important that the processes for establishing bylaws, scopes of practice, and privileging standards provide appropriately for the range of providers who render service, while at the same time working with relevant professional groups and jurisdictions to move toward consistent practice requirements.

The Workgroup suggested use of telehealth as another way to increase the number of same-day or after-hours appointments as well as to secure specialty care. However, in addition to previously noted caveats concerning telehealth, Workgroup members recommended that the potential for care fragmentation that can arise from telehealth consultations be recognized so that telehealth can be used to enhance the primary care experience.

Access to Specialty Care

The Workgroup noted the substantial heterogeneity in the availability of specialty care for rural residents in terms of timing and type of specialty care. 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), and it is unlikely that all needed specialists would be able to do this. Thus, while specialist care technically may be available, it may be inconsistent or delayed.

The Workgroup agreed that having effective 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 require the patient to go a little further than the closest tertiary center. This strategy relies on the assumption 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 improve patients' access to available specialists, although members emphasized that this still does not address the overall or specialty-specific 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: Time to Next Appointment

Again, the Workgroup pointed to effective referral relationships and strong care coordination with referral sites as a way to ensure reasonable timeliness for appointments, along with use of telehealth. A combination of strategies likely will vary across care settings as communities and provider groups work to meet care needs of the rural populations they serve.

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

Lack of transportation can affect ability to access care in a timely manner. Workgroup members recommended several options to address this challenge; these are discussed below in the Transportation section.

In general, creative solutions are being introduced across communities to meet patient needs in various ways. However, it is important to acknowledge, and then work to address, the fact that the lack of adequate numbers of providers, both physician and nonphysician, will continue to mean that whenever one gap is filled, it likely creates a challenge elsewhere. Regardless, an essential component of these creative solutions includes matching care needs of patients to an appropriate provider of that care.

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 when in-person interpreters are not available on-site. While such services are widely available, rural providers may need to educate 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, patients' 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 communication of health information (e.g., patient portals are not supported). Workgroup members noted that the ongoing expansion of remote access technology (e.g., cell phone applications; blood glucose monitors, etc.) and expanded capability of such technologies to communicate with patients will dictate that these issues be addressed from the provider side.

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. Members also suggested that the topic of clinician-patient communication from a rural perspective should be explored more fully.

Transportation

As noted above, the Workgroup recognized transportation as a key barrier to access for many rural residents.

In addition to considering telehealth as one potential strategy to address transportation issues, the Workgroup suggested specific transportation solutions. Examples include partnering with existing transportation services (e.g., taxis or taxi-like services), contracting with a local bus service, or even employing a driver. Workgroup members 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. 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. One member noted that several states have found it cost effective to provide transportation services for their Medicaid clients so they do not miss appointments.

The Workgroup also noted that unpaid family caregivers often fill 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, and members recognized the need to address this aspect of transportation for rural residents.

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 and meet licensing requirements. As solutions are sought, Workgroup members noted that types of licensing options, leasing and operations issues, and definitions (e.g., what is a "hospital outpatient clinic") may require consideration.

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 as the most important facets of affordability for rural residents.

Workgroup members discussed whether total out-of-pocket costs and delays in care should be considered as facets of *accessibility* for rural residents and either dispense with the subdomain of affordability completely or limit discussion of that domain to total cost of care. Although acknowledging its importance, members decided that total cost of care pertains more to payers or the healthcare system as a whole rather than to the individual rural resident. Ultimately, the Workgroup agreed that rural residents make care decisions (including the decision to delay care) based on affordability, and keeping Affordability as a separate domain emphasizes its importance as a driver of access.

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 considering whether it would be appropriate to include distance as part of the risk-adjustment approach for cost measures.

Delayed Care Due to Out-of-Pocket Costs

The Workgroup agreed that the shift to higher deductible plans or other forms of underinsurance, lack of medical insurance, and network inadequacy are key 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 also 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 suggested that the move from fee-for-service to value-based care, efforts to preserve the nation's healthcare safety net, Medicaid expansion, and providing care to the full extent of a provider's education and credentials have helped reduce delays in care due to out-of-pocket costs. Members recommended that providers and payers monitor the balances that patients owe after insurance. They also suggested working to increase literacy about insurance (e.g., to help patients understand the implications of selecting a high-deductible insurance plan).

CONCLUSION AND NEXT STEPS

The formation of the MAP Rural Health Workgroup—with its efforts to identify a core set of the best-available rural-relevant measures, call attention to measurement gap areas, highlight key facets of access of care that are particularly relevant for rural residents, and share ways to address challenges in improving access to care—represents an important step forward in efforts to improve the health and healthcare of those who live in rural areas of the U.S.

While content with its work to date, the Workgroup strongly recommends that CMS **continue to fund the MAP Rural Health Workgroup going forward**. Continued funding of the Workgroup would allow monitoring and updating of the core set of measures as needed. The Workgroup strongly believes that the core set should not be static but should evolve over time, as new measures are developed or existing measures are modified. Such monitoring of the core set also would allow for discussion of potential unintended consequences related to use of the measures and, if indicated, removal of measures from the core set. Additionally, continued funding of the Workgroup would allow those most affected by, and those most knowledgeable about, rural measurement challenges and potential solutions to provide input on other topics of particular interest to rural residents and providers. Potential topics could include—but are not limited to—identifying a menu of optional measures that are relevant for rural providers but that might not be applicable for all; focusing on various aspects of post-acute care in rural areas; and continuing to explore issues related to measuring and improving access to care.

REFERENCES

1 United States Census Bureau. 2010 Census urban and rural classification and urban area criteria website. https://www.census.gov/geo/reference/ua/urban-rural-2010.html. Last accessed May 2018.

2 United States Department of Agriculture Economic Research Service. State data website. https://data.ers.usda.gov/reports.aspx?ID=17854. Last accessed May 2018.

3 Matthews KA, Croft JB, Liu Y, et al. Health-related behaviors by urban-rural county classification - United States, 2013. *MMWR Surveill Summ*. 2017;66(5):1-8.

4 Moy E, Garcia M, Bastian B, et al. Leading causes of death in nonmetropolitan and metropolitan areas—United States, 1999-2014. *MMWR Surveill Summ*. 2017;66:1-8.

5 Meit M, Knudson A, Gilbert T, et al. *The 2014 Update of the Rural-Urban Chartbook*. Bethesda, MD: Rural Health Reform Policy Research Center (RHRPRC); 2014. https://ruralhealth.und.edu/projects/health-reform-policy-research-center/pdf/2014-rural-urban-chartbook-update.pdf. Last accessed May 2018.

6 Douthit N, Kiv S, Dwolatzky T, et al. Exposing some important barriers to health care access in the rural USA. *Public Health*. 2015;129(6):611-620.

7 *Rural Healthy People 2020*. College Station, Texas: Texas A&M Health Science Center School of Public Health, Southwest Rural Health Research Center; 2015. https://srhrc.tamhsc.edu/rhp2020/index.html. Last accessed May 2018.

8 National Quality Forum. *Performance Measurement for Rural Low-Volume Providers*. Washington, DC: National Quality Forum; 2015. http://www.qualityforum.org/Publications/2015/09/Rural_Health_Final_Report.aspx. Last accessed September 2017.

9 Centers for Medicare and Medicaid Services (CMS). Meaningful Measures Hub. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html. Published May 18, 2018. Last accessed August 2018.

10 Centers for Medicare and Medicaid Services (CMS). *CMS Rural Health Strategy 2018*. Baltimore, MD: Centers for Medicare and Medicaid Services (CMS); 2018. https://www.cms.gov/About-CMS/Agency-Information/OMH/Downloads/Rural-Strategy-2018.pdf. Last accessed May 2018.

11 National Quality Forum. *Measuring and Improving the Performance of Rural Healthcare Providers*. Washington, DC: National Quality Forum; 2016. http://public.qualityforum.org/Chart%20Graphics/Measuring%20and%20Improving%20the%20Performance%20of%20Rural%20Healthcare%20Providers.pdf. Last accessed May 2018.

12 National Quality Forum. *A Roadmap for Promoting Health Equity and Eliminating Disparities: The Four I's for Health Equity*. Washington, DC: National Quality Forum; 2017.

13 National Quality Forum. *Creating a Framework to Support Measure Development for Telehealth*. Washington, DC: National Quality Forum; 2017. http://www.qualityforum.org/Publications/2017/08/Creating_a_Framework_to_Support_Measure_Development_for_Telehealth.aspx. Last accessed September 2017.

14 National Quality Forum. *Healthcare Disparities and Cultural Competency Consensus Standards: Disparities-Sensitive Measure Assessment*. Washington, DC: National Quality Forum; 2012. http://www.qualityforum.org/Publications/2012/11/Healthcare_Disparities_and_Cultural_Competency_Consensus_Standards__Disparities-Sensitive_Measure_Assessment.aspx. Last accessed September 2017.

15 University of Utah Health. The state of value in U.S. health care website. https://uofuhealth.utah.edu/value/. Last accessed May 2018.

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

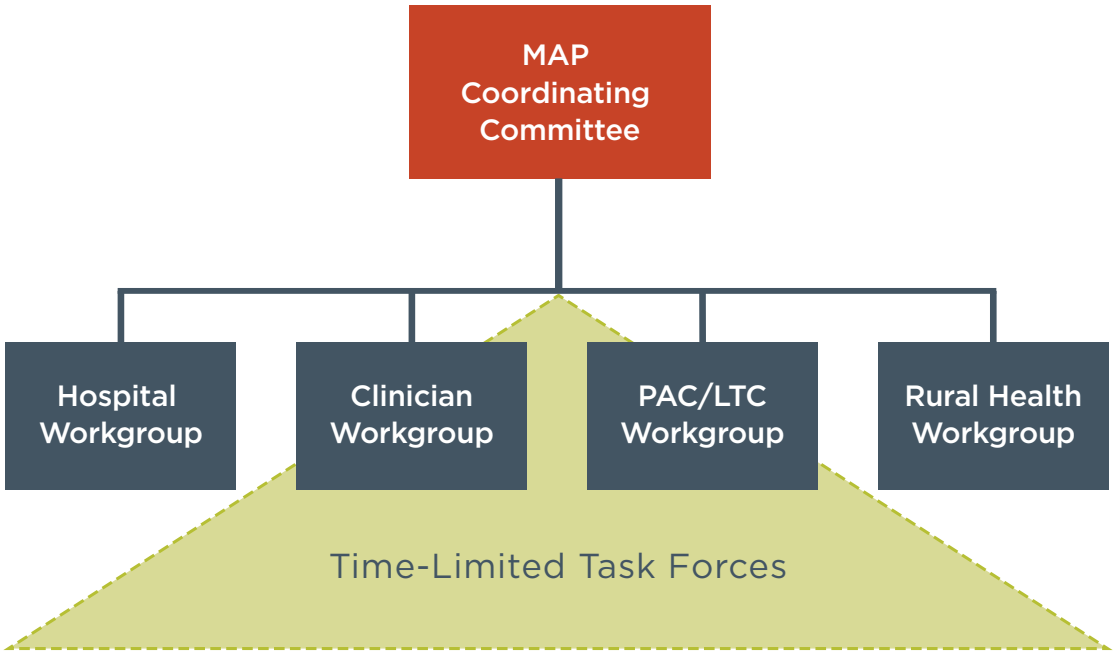
The pre-rulemaking process allows input from stakeholders affected by or interested in the use of quality measures. This process encompasses several steps:

- 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 associated 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 A1).

FIGURE A1. MAP STRUCTURE



APPENDIX B:
MAP Rural Health Workgroup and NQF Staff

WORKGROUP CO-CHAIRS (VOTING, INDIVIDUAL SUBJECT MATTER EXPERTS)

Aaron Garman, MD
Ira Moscovice, PhD

ORGANIZATIONAL MEMBERS (VOTING)

Alliant Health Solutions
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American Academy of Family Physicians
David Schmitz, MD, FAAFP

American Academy of Physician Assistants
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American College of Emergency Physicians
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Karen Murphy, PhD, RN

Health Care Service Corporation
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Michigan Center for Rural Health
Crystal Barter, MS

Minnesota Community Measurement
Julie Sonier, MPA

National Association of Rural Health Clinics
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Susan Wilger, MPA

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Sharon Raggio, LPC, LMFT, MBA

National Rural Health Association
Brock Slabach, MPH, FACHE

National Rural Letter Carriers' Association
Cameron Deml

RUPRI Center for Rural Health Policy Analysis
Keith Mueller, PhD

Rural Wisconsin Health Cooperative
Tim Size, MBA

Truven Health Analytics LLC/ IBM Watson Health Company
Cheryl Powell, MPP

ADDITIONAL INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

John Gale, MS

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Melinda Murphy, RN, MS

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FEDERAL GOVERNMENT MEMBERS (NON-VOTING)

Center for Medicare and Medicaid Innovation, Centers for Medicare & Medicaid Services (CMS)
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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

Between November 2017 and July 2018, 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 developed two draft reports of the recommendations. The first draft report detailed the measure selection criteria, a preliminary core set of measures, and prioritized measurement gaps. The second draft report updated the first draft report and included the Workgroup's recommendations on access to care from a rural perspective. NQF staff posted the second draft report for public comment from June 1 to July 2, 2018. NQF received 14 comments on the report from 8 organizations that represent a variety of stakeholders.

Workgroup members met in July 2018 to discuss the public comments and discuss further refinements to the report. In August 2018, the MAP Coordinating Committee reviewed and approved 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 set; input on relevant measurement topic area
January 2018	Webinar #3: Finalize selection criteria, revise draft core set; finalize draft prioritized measurement gap list
February 2018	Webinar #4: Review Draft Report # 1, provide feedback, finalize draft core set and prioritized measure gaps list
	Deliverable: Draft Report # 1: Selection criteria, draft core set, prioritized measurement gaps
March 2018	Webinar #4.5: Complete finalization of draft core set
	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 set 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 set, 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 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 • Substance abuse • Medication reconciliation	15%
Tier 3	• Diabetes • Hypertension • Chronic obstructive pulmonary disease (COPD)	10%
Tier 4	• Readmissions • Perinatal • 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 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" 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 core set, beyond the 44 measures in the "strawman" 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 core set, bringing the total up to 74 measures for further detailed consideration (Appendix F). While staff 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 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 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 In Depth for the 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 Even with the inclusion of #0729 in the core set, members believe this measure will provide specific insight into patients' degree of control of diabetes
0729 Optimal Diabetes Care*	Diabetes	No	Yes	No	Captures overall clinical management Although some Workgroup members do not like the all-or-none nature of this measure and some noted that some components of the measure are beyond the control of the clinician, they agreed that the measure, which captures overall clinical management of an important chronic condition, reflects what is best for patient care In recommending the measure for inclusion in the core set, the Workgroup recommended that the measure only be used for quality or population health improvement and not for payment adjustment
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
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

NQF # and measure title	Condition/ topic	Cross-cutting	Resistant to Low case-volume	Transitions of care	Additional rationale for inclusion/ exclusion
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 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	Despite some concern about low case-volume for some hospitals, members agreed it is important to capture patient experience in the inpatient setting and thought these measures are the best available at this time Noted the burden of collecting data for the measures and recommended CMS consider expanding electronic data capture options (e.g., via e-mail or smartphone applications) to reduce burden and encourage more participation
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	Important to track and report measures of healthcare associated infections. 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	Important to track and report measures of healthcare associated infections but 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
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	Important to track and report measures of healthcare associated infections, but 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	Important to track and report measures of healthcare associated infections. Targets a common hospital infection, and therefore likely resistant to low case-volume
0038 Childhood Immunization Status (CIS)^	Immunization	Yes	Yes	No	Good measure-preventative care 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	Members noted that although immunizations are administered through sources other than the primary care office, they agreed that this does not relieve the provider of the responsibility of asking about immunization status
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	Although acknowledging the challenges in collecting data for this measure, Workgroup members agreed that medication reconciliation is important because medication errors during transitions of care are 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	Overall interest in including screening measures in the core set, particularly for behavioral health Important aspect of care to capture, is not overly resource dependent
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
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	Desire for outcome measures in the core set When comparing against a similar measure with 12-month time period, the Workgroup did not want to include both and 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

NQF # and measure title	Condition/ topic	Cross-cutting	Resistant to Low case-volume	Transitions of care	Additional rationale for inclusion/ exclusion
0018 Controlling High Blood Pressure^	Other - Hypertension	No	Yes	No	Desire to include a measure assessing blood pressure control Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis
0439 STK-06: Discharged on Statin Medication	Other - Neuro - Stroke/ TIA	No	Yes	No	Did not recommend because it is not cross-cutting
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 This measure applies to most hospitalized patients, not just surgical patients, and includes both mechanical and pharmacologic prophylaxis; thus, low case-volume should not be an issue for most rural hospitals
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
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 due to increases in childhood obesity 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

NQF # and measure title	Condition/ topic	Cross-cutting	Resistant to Low case-volume	Transitions of care	Additional rationale for inclusion/ exclusion
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	Although acknowledging that many rural hospitals do not provide obstetric care, Workgroup members underscored the importance of focusing on best practices in obstetric care in rural areas, including reducing cesarean section deliveries The Workgroup noted the need for continued monitoring of this measure due to concerns regarding potential unintended consequences (e.g., loss of access to obstetric care due to poor performance on the measure)
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	Reproductive care is an important aspect of care for women; contraception helps prevent teen and unintended pregnancy
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

NQF # and measure title	Condition/ topic	Cross-cutting	Resistant to Low case-volume	Transitions of care	Additional rationale for inclusion/ exclusion
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. Commenters noted that the majority of Critical Access Hospitals meet the threshold number of cases for this measure Members clarified that transferred patients are not included in the denominator of the measure (a concern for rural providers) Acknowledged concerns with risk-adjustment and encouraged consideration of adjustment for social risk in future updates of the measure Recommended that if a hospital does not have enough volume to report the measure, that hospital would not be assessed with this measure or otherwise penalized due to inability to report 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
0032 Cervical Cancer Screening (CCS)^	Screening	Yes	Yes	No	Strong support to include at least one cancer screening measure in the core set 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 Of the three cancer screening measures considered, this one had the most support of the Workgroup 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	Overall interest in including screening measures in the core set, particularly for behavioral health Addresses critical issue in rural healthcare, due to high prevalence of obesity
2372 Breast Cancer Screening^	Screening	Yes	Yes	No	Strong support to include at least one cancer screening measure in the core set Strongly recommended inclusion of measure similar to this but specified for the clinician level of analysis

NQF # and measure title	Condition/ topic	Cross-cutting	Resistant to Low case-volume	Transitions of care	Additional rationale for inclusion/ exclusion
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
1661 SUB-1 Alcohol Use Screening*	Substance Abuse	Yes	Yes	No	Overall interest in including screening measures in the core set, particularly for behavioral health Workgroup wanted to include a measure that screens for alcohol use or abuse in both the hospital and ambulatory setting
2152 Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling*	Substance Abuse	Yes	Yes	No	Overall interest in including screening measures in the core set, particularly for behavioral health The Workgroup wanted to include a measure that screens for alcohol use or abuse in both the hospital and ambulatory setting
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	Overall interest in including screening measures in the core set, particularly for behavioral health 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

* This measure is included in the core set.

^ This measure is an additional measure recommended for the ambulatory setting. The measure is specified at the health plan and integrated delivery system level.

APPENDIX G:
Core Set and Additional 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
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	
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

Measure	Category	Measure Type	Federal Programs	Core Quality Measures Collaborative	Medicare Beneficiary Quality Improvement Project (MBQIP)	Other Programs
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
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)			
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)			

Measure	Category	Measure Type	Federal Programs	Core Quality Measures Collaborative	Medicare Beneficiary Quality Improvement Project (MBQIP)	Other Programs
0202 Falls with injury	Patient Safety - Falls	Outcome			Additional MBQIP	
0471 PC-02 Cesarean Birth	Perinatal	Outcome	Medicaid (Implemented)	OB/GYN (Hospital/ Acute)		
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)			
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
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)			

Measure	Category	Measure Type	Federal Programs	Core Quality Measures Collaborative	Medicare Beneficiary Quality Improvement Project (MBQIP)	Other Programs
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
0291 Emergency Transfer Communication Measure	Transitions	Process			Core MBQIP Measures	
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
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
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
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
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
2903 Contraceptive Care – Most & Moderately Effective Methods^	Perinatal	Outcome: Intermediate Clinical Outcome	Medicaid (Implemented)			

^ This measure is an additional measure recommended for the ambulatory setting. The measure is specified at the health plan and integrated delivery system level.

APPENDIX H:
Public Comments

General comments on the report

National Organization of State Offices of Rural Health

Teryl Eisinger

The National Organization of State Offices of Rural Health (NOSORH) is the membership association of the nation's fifty State Offices of Rural Health (SORH). SORH are anchors of information, key conveners and an important source for technical assistance resources for critical access hospitals, certified rural health clinics, EMS and other rural providers serving rural communities and patients.

Attached are the comments and recommendations of the National Organization of State Offices of Rural Health (NOSORH) on the National Quality Forum (NQF) draft report, 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.

NOSORH is strongly supportive of several of the measure selection criteria used by the Rural Health Workgroup:

Cross-cutting measures: applicable to the broadest range of patients and services

Measures relevant to low volume service environments: applicable for measuring quality with relatively small numbers of reportable incidents.

Measures that address transitions in care: assessing the broader context of care continuity across multiple environments, including a patient's home.

NOSORH believes that a quality measurement scheme developed with these selection criteria will be a major step forward in understanding quality trends in rural health services.

NOSORH is also strongly supportive of efforts to understand the relationship of health service access to health service quality. NOSORH supports consideration of the access components identified in the report – availability, accessibility and affordability – and believes that understanding the impact of these factors on service quality will be a positive development. NOSORH will present its own framework for understanding this relationship as part of these comments.

NOSORH also believes that that the rural/frontier health system environment, both for providers and patients, is different than the urban environment. In light of this difference NOSORH's comments and recommendations suggest how appropriate measures could be constructed so that they are reflective of quality in rural systems.

Presented below are NOSORH's specific comments, followed by recommendations for the continued development of rural-specific measures.

Issue: Congruence of measures with major categories of providers.

NOSORH understands that there are possible measures that cut across different types of providers. For example, measurement of the use of patient surveys could be useful many different categories of provider. NOSORH believes, however, that rather than limiting the number of quality measures for rural providers to a small set of cross-cutting measures – typically emphasizing structural or procedural systems – it should be possible to establish supplemental sets of measures that are specific to major categories of providers. Reporting on these additional measure sets, limited to providers in a given category, would provide the basis for peer group comparisons, as will be discussed subsequently.

NOSORH believes that no single measurement set should be created for all providers. A 'one size fits all' approach has been taken by some CMS provider evaluation schemes - in particular the Hospital Star Rating system. Under this scheme hospitals are assessed on 57 separate reported measures grouped in 7 Domains. Few hospitals can acceptably report on all 57 measures. This has led to different hospitals being assessed on completely different numbers of measures and different mixes of measures. This severely limits the usefulness of the ultimate comparisons.

NOSORH has conducted a study of the Hospital Star Rating system and identified major problems with its treatment of rural providers. NOSORH analysis has indicated that, in the most recent iteration of the data reporting, fewer than half of all CAHs (48%) were able to report enough measures to be rated. In addition, among rated hospitals, fewer than 10% of all CAHs were rated on the important Patient Safety domain, compared to more than 90% of all acute care hospitals. This is very problematic. NOSORH believes that the Rural Health Workgroup can establish a quality measurement scheme that can prevent a repetition of this issue.

While it would be possible to respond to this challenge by limiting measures to ones that are cross-cutting, NOSORH believes that a different approach would be more useful. NQF could identify a core set of cross-cutting measures for all providers and also identify separate supplemental sets of measures that are specific to different provider categories. Separate inpatient measure sets can be established for CAHs, general acute care facilities and for specialty care facilities. Separate outpatient category measure sets can be established for primary care providers and key categories of specialists/subspecialists. This approach would increase the degree to which different providers can report and be evaluated on the same measures.

See Recommendation on next comment

Recommendation – Create separate sets of measures specific to the services of key categories of providers.

NOSORH recommends that the NQF, in the next phase of measure development, create separate sets of quality/performance measures that are specific to key categories of health service providers. These measure sets should include both a shared core component of cross-cutting measures and a separate component of measures specific to each provider category.

NOSORH further recommends that, wherever possible, candidate measures be tested against actual reporting by service providers. In its own studies NOSORH has been able to use the datasets of different CMS reports to identify the reporting rates of different categories of hospitals for both individual measures and measure domains. NOSORH recommends that similar assessment be conducted on candidate measures to assure that these measures are relevant for provider categories and that rural providers have sufficient volumes of activity to meet minimum reporting levels.

Issue: Rural provider peer group standards/comparisons.

For purposes of evaluation NOSORH believes that, whatever measures are chosen, there should be a set of peer group standards/comparisons available for individual providers. This will assure that a given provider's performance is being assessed compared to an equivalent provider. A good example of how this could be implemented is the County Health Rankings project of the Robert Wood Johnson Foundation. This project compiles county level health data for the nation and provides a tool that allows individual counties to compare their measures against peer counties. See the link describing this approach:

http://www.countyhealthrankings.org/peer-counties-tool

A similar approach would be useful for rural provider quality measurement. Within each service provider category sub-groups could be identified with equivalent operational size, service mixes and service areas. This would permit, for example, individual Critical Access Hospitals (CAHs) to compare themselves to equivalent CAHs. This would be more meaningful than having a CAH attempt to compare itself to a larger acute care hospital with a wider mix of service offerings. NOSORH believes that peer group standards/comparisons can be created in all the major categories of providers.

Recommendation – Create rural provider peer groups for more meaningful comparisons.

NOSORH recommends that the NQF, in its development of rural provider specific quality/performance measures, identify provider peer groups within key provider categories. These sub-groups can be based upon the operational size, such as bed count, as well as other key characteristics, such as service mix. This approach would permit providers to compare their operations to others that are equivalent. The approach would also allow the development of appropriate quality/performance standards and norms.

For Response 4 – Rural Access Considerations:

NOSORH views access as an important factor affecting the ability of health care providers to achieve service quality. NOSORH believes that access can be seen as a risk adjustment issue in rural health measurement and evaluation. NOSORH prioritizes three key access considerations:

Issue: Access to health services – Availability.

A key access consideration is the availability of health services, particularly in defined shortage areas. In these shortage areas there are factors which make it more difficult for rural providers to provide the type of comprehensive care associated with good quality.

For example in Health Professional Shortage Areas (HPSAs) designated by the Health Resources and Services Administration (HRSA), based upon designation standards there may 2 patients potentially requesting service for every available service appointment. This excess demand forces providers to choose between providing time-limited, acute care for many patients and providing comprehensive or time-intensive care to fewer patients. This choice may have significant impact on service outcome and quality. Some of the recommended supplemental services may not be provided and patients may have poorer outcomes.

Issue: Access to health services – Accessibility.

Many rural/frontier residents face longer distances to health services than do urban residents. The absence of adequate public transportation in non-urban areas makes rural/frontier residents more reliant upon private vehicles. The result, for many rural/frontier residents, is higher travel costs – including both the cost of travel and the cost of foregone work time. Since many specialty/subspecialty services are not available locally, the cost of travel for these services, requiring trips to more distant cities, can be even higher.

This higher cost is part of a 'rural surcharge' on most health care use. This higher cost creates a barrier for the use of services, including appropriate follow-up services. Lower compliance with comprehensive care plans can result, leading to poorer outcomes for patients in more remote communities.

Issue: Access to health services – Affordability.

Lower income patients - particularly those individuals who are uninsured or underinsured - may have difficulty purchasing the services that they need. This can include difficulty meeting co-pays and deductibles. Financial limitations may prevent patients from securing the full range of services in their care plans, and can result in poorer outcomes for patients in low income communities.

In recognition of the special circumstances of areas with a high percentage of low income individuals, there is a need to adjust quality and performance standards for providers serving those areas.

Stratis Health

Karla Weng

Stratis Health is a non-profit organization whose mission is to lead collaboration and innovation in health care quality and safety. We have a long history of working closely with Critical Access Hospitals (CAHs) and other rural health care organizations and clinicians, with a focus on supporting quality reporting and improvement.

We applaud the efforts of the NQF MAP Rural Health Workgroup in identifying, prioritizing, and increasing focus on measures that are meaningful to rural hospitals, clinicians, and consumers. In terms of the Draft MAP Rural Health Workgroup report, our comments focus on the draft core set recommendations for the hospital setting since the differences in volume and services between small rural hospitals and larger community and tertiary hospitals make the translation of quality metrics much more challenging.

Specific comments on individual measures are embedded in the above categories. Our general comments on the report include:

The 2015 NQF Rural Health Committee report highlighted the need for rural relevant measure development. That need has not diminished, nor are we aware there has been significant investment in that area – particularly in terms of quality measures for hospital care.

We recognize the need to limit the scope of exploration when identifying core measure set recommendations, and limiting the discussion to currently endorsed NQF measures is a logical step in that process. However, we have concern that there is lost opportunity to identify measures that could potentially be valuable in a small rural hospital setting by including non-NQF endorsed measures, or by

adapting currently endorsed NQF measures from other settings. For example, the Advance Care plan measure (NQF 0326): the percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record is currently a clinician-level measure, but could be adapted to be relevant in a hospital setting.

Thank you for the opportunity to submit comments, and in particular, your work to help assure that patients living in rural places continue to receive the highest quality care possible in our nation's rural hospitals.

NQF-endorsed measures you would recommend for inclusion in the draft core set

Stratis Health

Karla Weng

Readmissions (Hospital-Wide All-Cause Unplanned Readmission Measure (HWR – NQF 1789)): We strongly encourage inclusion of this measure in the core set as it is an important area of focus to help improve quality of care. We recognize the committee's concerns for potential volume concerns and risk adjustment. It would be ideal if calculation of the metric could be expanded beyond the Medicare Fee For Service (FFS) population that is currently used, ideally to the full population, but perhaps more realistically to at least add Medicare Advantage. In our last review of national CAH performance on this measure, the majority of CAHs did meet the threshold of cases to have this calculated.

Measures you would recommend for removal from the draft core set

American Medical Association

Koryn Rubin

The American Medical Association (AMA) appreciates the opportunity to comment on the NQF Measures Application 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 report. The AMA is sensitive to the unique challenges faced by providers in rural areas and we provide comments to further strengthen the recommendations outlined this report.

First, the AMA strongly supports the concerns around including #1789: Hospital-wide, All-cause Unplanned Readmission Measure. We believe that many rural hospitals will encounter low case volumes leading to the inapplicability of the measure to many in the rural setting. In addition, the AMA continues to advocate for inclusion of social risk factors in the risk adjustment methodology of this measure. Accounting for these risk factors must be accomplished to ensure that fair and valid conclusions can be drawn based on the resulting performance scores. Until these two issues are addressed, the AMA does not support the inclusion of this measure in the hospital setting draft core set.

The AMA also is concerned to see the inclusion of Measure #729: Optimal Diabetes Care in the ambulatory care setting draft core set. This measure must be risk-adjusted or stratified to enable fair and valid comparisons among physicians prior to its inclusion. Currently, this composite includes measures on intermediate outcomes, which assume that all patients aged 18 to 75 years can reasonably achieve these targets. In programs which compare a physician's score against his or her peers, it is unreasonable to assume that patient populations across the United States are homogeneous and that all physicians reporting this measure can achieve similar scores. As a result, we believe that physicians will be unfairly penalized if they have more complex patients and patients will be misinformed on the actual quality of care provided. We believe that this misrepresentation will be even more likely to occur in the rural setting.

New Hampshire Department of Health and Human Services

Marie Wawrzyniak

I recommend removing 0291 Emergency Transfer Communication Measure from the draft core set of rural-relevant measures. I agree that accurate and adequate transfer communicaiton is critical, and that Critical Access Hospitals must assure at least provider to provider communication with receiving hospitals.

The current EDTC measure required by CMS/MBQIP for Critical Access Hospitals includes values that are not critical for transfer communication, and are not required communication for the tertiary care hospital transfer center.

Should the EDTC measure be included, I recommend it be limited to transfers to other hosptals for care that can not be provided in the transferring hospital. I also recommend that the measure be limited to provider to provider communication between the transferring and receiving hospitals.

Oklahoma Foundation for Medical Quality

Zach Root

Table 1:

In our experience working with rural health hospitals, they all had low case volumes (< 5 cases or low survey response rate) in the CAUTI, HCAHPS, VTE and CDI measures. Also, not all rural hospitals perform c-sections. Therefore, we do not agree with categorizing these measures as 'resistant to low case volume.'

NQF #s: 0138, 0166, 0371, 1717, 0471

Stratis Health

Karla Weng

We're hesitant to recommend removal of these metrics, as both areas are important, but have concerns about the utility of them as quality measures as currently defined.

Hospital Acquired Infections: Although we feel it is vitally important for CAHs and other rural hospitals to be reporting HAI data to the National Healthcare Safety Network (NHSN), our analysis of HAI data indicates very few CAHs have enough cases for the quality metric of a standardized infection ratio (SIR) to be calculated for either CAUTI (NQF 0138) or CDI (NQF 1717) on a quarterly, and often even a yearly basis. We strongly encourage exploration into how to make measurement of HAIs more meaningful for low-volume facilities. We also think there is opportunity for better clarity around the inclusion in quality measures of CAH swing bed patients HAI monitoring, which also could potentially help address the low volume issue for SIR calculation.

Perinatal Care (PC-02 – Cesarean Birth, NQF 0471): It is critical for hospitals that have labor and delivery units to be reporting on related quality measures, but a limited proportion of CAHs provide this service, limiting its utility as a core measure across all rural hospitals.

Overall draft core set of rural-relevant measures.

Stratis Health

Karla Weng

HCAHPS: HCAHPS as a mechanism to evaluate patient experience of care is relevant for many rural hospitals. However, nearly 60% of CAHs that are submitting HCAHPS data don't meet the CMS star rating threshold of 100 completed surveys over four quarters, and 12% of reporting CAHs had fewer than 25 surveys returned (Patients' Experiences in CAHs: HCAHPS Results, 2016). An Emergency Department patient experience survey would be valuable option for many CAHs, where the volume of patients seen in the emergency department often greatly exceeds the number of inpatients that meet the HCAHPS survey criteria. We are aware that CMS has been testing Emergency Department versions of patient experience of care surveys (ED-PEC: ED Patient Experience of Care); it is unclear when it will move from testing to broad implementation.

Venous Thromboembolism Prophylaxis (VTE-6): This measure should be relevant for most CAHs, and is currently available as a CMS electronic Clinical Quality Measure (eCQM). It is unclear at this point how many CAHs will report on the measure as part of the Promoting Interoperability Program (formerly known as the Medicare EHR Incentive Program). Although we recognize the potential for increased use of eCQMs as a method to streamline and reduce reporting burden, we are concerned that electronic health record (EHR) capabilities, particularly for small rural hospitals, are a significant limitation in the ability for these hospitals to collect and report eCQMs.

Emergency Department Transfer Communication (EDTC): We are pleased to see this measure included and prioritized. More than 1,100 CAHs are currently reporting this measure through the Federal Office of Rural Health Policy (FORHP) Medicare Beneficiary Quality Improvement Project (MBQIP). Stratis Health

worked with the University of Minnesota Rural Health Research Center to support a technical expert panel (TEP) review of the measure in the Spring of 2018. TEP recommendations that will streamline and modernize the measure are in process of being submitted to NQF through the ongoing endorsement process for the measure. The updated version of the measure is anticipated to be available in 2019.

Alcohol/Substance Use (SUB-1 Alcohol Use Screening):. This measure is broadly relevant across rural hospitals and is a good starting point to address the important issue of alcohol and substance abuse. We are glad to see it included.

Falls (Falls with injury): We are happy to see this measure included, as it is an important aspect of patient safety and many CAHs are currently looking at this data as part of participation with Hospital Improvement Innovation Networks (HIINs). Unfortunately at this time there isn't consistent national level data submission process that would allow for comparison and evaluation of the measure across CAHs nationally.

Thomas Jefferson University Hospital

Judd Hollander

I think the group did a nice job incorporating and discussing telehealth.

Anonymous

Tables 1, 2 and 3:

We like the measures related to mental health, substance abuse and cancer screenings because they look at the total population as related to age and not diagnosis or condition. These measures would likely be resistant to low case volume. Adding the telehealth measure to follow up on positive screenings could potentially improve outcomes. Can this measure be reported electronically or through chart extraction?

NQF#s: 1661, 0028, 0418, 0711, 2152, 0032, 0034, 2372

CAUTI and CDI measures may not be appropriate, as currently listed, for rural hospitals? With such small numbers, any event can distort results. Can the measures be annual collections so that a bigger pool of admissions and events is available?

What will be the requirements for reporting?

Through MIPS for physician offices?

Through IQR for hospitals?

Through another program altogether?

Or, will it become a measure set option?

Considering access to care from a rural perspective

American Medical Association

Koryn Rubin

The AMA would like to thank the workgroup for their recognition that while a physician or provider may be able to influence the results of a process or outcome, it does not necessarily indicate that he or she should also be held accountable. This issue is discussed on pages 20-21 under "Considering Access to Care from a Rural Perspective," but applies more broadly to other measurement domains. We appreciate the workgroup's thoughtful consideration of this issue.

Los Angeles County-USC Medical Center

Paul Giboney

I would like to applaud the workgroup on their thoughtfulness in identifying the Facets of Access most relevant for Rural Residents (Page 22, Table 4).

The workgroup rightfully points out (page 18) that there is the potential for "unintended consequences" in devising measures of access. We should always seek to create performance targets that incentivize delivery of the right care, in the right location in the right timeliness.

With that in mind, I believe we are still able to challenge ourselves as health care providers, to promote standards that emphasize the kind of care each of us would want to have, without incentivizing low-value behavior.

It is reasonable, for every patient, through their Primary Care Provider (urban, suburban or rural setting) to receive an individualized response to a request for specialty care expertise within a short amount of time (perhaps 5 calendar days). The response could be in a number of categories:

1. A plan to schedule the patient for an in-person specialty visit.

2. A plan to schedule the patient for a tele-health specialty visit
3. A request for additional patient information/history/ testing to allow the specialist to make a more informed clinical recommendation.
4. A recommendation for the PCP to engage in a therapeutic trial (without an in-person specialty visit)
5. A longitudinal “co-management” of the patient with the PCP via telehealth (e.g. eConsult, Project ECHO, etc.)

Telehealth is an important part of rural access, but these standards can be delivered without it.

I know that this NQF workgroup is not convened to devise new metrics, so the recommendations in this comment will not result in a “new metric” from this workgroup. However, I did want to acknowledge that, while access challengs are large in rural settings… they are not without solutions. Telehealth is a major one that can transform the quality of, access to and timeliness of specialty care delivery.

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