



**CMS Quality Measure Development Plan  
Technical Expert Panel  
Meeting Summary  
(MACRA Section 102)**

*Meeting Date: November 17, 2016*

**Center for Clinical Standards and Quality  
Centers for Medicare & Medicaid Services**

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**Prepared by: Health Services Advisory Group, Inc.**

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# Technical Expert Panel Meeting Summary

## I. INTRODUCTION

The Centers for Medicare & Medicaid Services (CMS) has contracted with Health Services Advisory Group, Inc. (HSAG) to develop and update the *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*<sup>i</sup> under Contract #HHSM-500-2013-130071; Task Order #HHSM-500-T0002. As part of this contract, HSAG (“the team”) convened a nationally credentialed, multidisciplinary technical expert panel (TEP) of stakeholders (e.g., persons and family representatives, frontline clinicians, consumer advocates, quality measurement and health information technology experts, and representatives of professional societies) to develop recommendations for updating the Measure Development Plan (MDP) and advancing clinician quality measure development to support MIPS and Advanced APMs, known collectively as the Quality Payment Program.<sup>ii</sup> The Quality Payment Program aims to improve health outcomes, promote smarter spending, minimize burden of participation, and provide fairness and transparency in operations. These aims are centered on improving beneficiary outcomes and engaging patients through patient-centered policies and enhancing clinician experience through flexible and transparent program design and interactions with easy-to-use program tools.

The purpose of this report is to provide a summary of the TEP’s perspectives and recommendations on prioritizing measure subtopics and reporting progress in implementing the plan. Public posting of this summary underscores the CMS commitment to knowledge sharing and transparency with stakeholders.

As context for the meeting proceedings, this report reviews the legislative authority for the MDP, annual progress reports, and the environmental scan and gap analysis that framed the TEP’s assessments. Overviews of panel discussions contain voting results and key takeaways about the importance and feasibility of selected measure subtopics, as well as potential alternatives, to address clinician quality measure gaps. Reference documents in the appendices include the approved TEP Charter, the meeting agenda, and TEP pre-assessment ratings of 88 measure subtopics identified as gaps for the specialties prioritized in the MDP. Through this foundational work, the MDP TEP provides expert input to CMS, other stakeholders, and potential measure developers to fulfill the CMS vision of a person-centered, value-based clinician quality measure portfolio.

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<sup>i</sup> CMS, Health Services Advisory Group. *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*. Baltimore, MD: US Department of Health and Human Services; 2016. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Final-MDP.pdf>. Accessed October 12, 2016.

<sup>ii</sup> CMS. MACRA: delivery system reform, Medicare payment reform. Baltimore, MD: US Department of Health and Human Services; 2016. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>. Accessed October 14, 2016.

<sup>iii</sup> Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10 §101(c). 129 Stat. 87, (2015)

## II. BACKGROUND

The Medicare Access and Children’s Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA),<sup>iii</sup> section 101, provides a unique opportunity to transform the health care delivery system from a volume-based payment system to one focused on quality and value. The Quality Payment Program replaces CMS legacy programs for clinician quality reporting, including the Physician Quality Reporting System (PQRS), the Value-based Payment Modifier (VM), and the Medicare EHR Incentive Program for Eligible Professionals, to support the transition to value-based care.

Section 102 of MACRA required the Secretary of Health and Human Services to develop and publicly post a quality measure development plan no later than May 1, 2016. CMS posted a draft plan on the CMS.gov website on December 18, 2015, and solicited public comment that subsequently informed the final MDP, which was posted on May 2, 2016.

Additionally, MACRA, section 102, requires an annual report on progress in developing measures for use by clinicians under the Merit-based Incentive Payment Systems and in Advanced Alternative Payment Models, including updates on approaches to implement the MDP, and the status of newly and previously identified gaps in measurement. CMS intends to publish this first Annual Report on the CMS.gov website no later than May 1, 2017.

Under this contract, the team conducted an environmental scan and gap analysis focused on the initial measure priorities and gaps identified in the MDP and mapped the results into a conceptual framework to ensure linkage and alignment with the CMS Quality Strategy domains. Across seven specialty areas, the analysis produced 88 subtopics for which no existing measures were identified (i.e., gaps).

Seeking expert stakeholder input on the findings of the *Environmental Scan and Gap Analysis Report*, the team solicited nominations for the MDP Technical Expert Panel through a notice on CMS.gov from August 26 to September 15, 2016. From more than 200 nominations, the team recommended 22 candidates for CMS review. The TEP roster was finalized and members were notified in October 2016. A membership list appears within the TEP Charter in Appendix I.

The team convened the first meeting of the MDP TEP in person and via webinar on November 17, 2016, in Tampa, Florida. The objectives of the meeting were as follows:

- Provide an update on establishment of the Quality Payment Program, guided by the CMS Quality Strategy,<sup>iv</sup> as a step toward health care delivery system reform.
- Discuss the role of the TEP in terms of project background and objectives, and ratify the TEP Charter.
- Consider the perspectives shared by patient and caregiver TEP members.
- Review the methodology and findings of the *Environmental Scan and Gap Analysis Report*.

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<sup>iv</sup> CMS. *CMS Quality Strategy 2016*. Baltimore, MD: US Department of Health and Human Services; 2015. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Downloads/CMS-Quality-Strategy.pdf>. Accessed October 14, 2016.

- Reaffirm priorities among measure subtopics that the TEP rated in preparation for the meeting.
- Recommend criteria for evaluating the impact of the MDP.

Prior to the initial TEP meeting, the team created an online pre-assessment tool and asked each TEP member to rate the 88 subtopics on a Likert scale of 1 (not at all important) to 9 (extremely important) and to provide comments on each subtopic, based on individual expertise and stakeholder perspective. The TEP members referenced the MDP and the draft *CMS MDP Environmental Scan and Gap Analysis Report* as they completed the pre-assessment. Next, the team ranked the selections for each specialty, based on the highest median ratings and the least standard deviation (see Appendix V). These rankings formed the basis for focused discussions and revised assessments at the meeting, as summarized in the following account.

### III. MEETING PROCEEDINGS

#### Welcome and Opening Remarks

**Presenters: Mary Ellen Dalton, PhD, MBA, RN, CHC, HSAG; Kyle Campbell, Pharm D, HSAG; Noni Bodkin, PhD, RN, CMS**

Dr. Dalton, Chief Executive Officer of HSAG, welcomed the participants and thanked them for attending. Dr. Campbell, Project Director, reviewed the meeting objectives and agenda (Appendix II) and reminded the participants that meeting materials are proprietary to the project and cannot be shared externally without permission from CMS. He then introduced the CMS lead for the project, Contracting Officer's Representative Noni Bodkin of the Quality Measurement and Value-Based Incentives Group (QMVIG).

Dr. Bodkin expressed appreciation for the TEP members' expertise and interest in partnering with CMS, as well as their advance work on the briefing materials. She introduced two CMS leaders who would address the TEP by video recording: Ms. Maria Durham, who directs the Division of Program and Measurement Support within QMVIG, and Dr. Kate Goodrich, CMS Chief Medical Officer and Director, Center for Clinical Standards and Quality (CCSQ). The center is responsible for implementation of MACRA, as well as nearly 20 quality measurement and value-based purchasing programs.

#### CMS Updates and New Directions

**Presenter: Maria Durham, MBA, MS, CMS**

Ms. Durham presented an overview of the CMS Quality Strategy, which was developed with input from stakeholders, published initially in 2013, and updated in 2015. Derived from the National Quality Strategy priorities, the CMS Quality Strategy guides CMS efforts to transform health care delivery, Ms. Durham explained. "It really prioritizes our six goals for success, and it illustrates the continued collaboration through a participatory, transparent, and collaborative process with a wide array of stakeholders," she said. The Quality Strategy mission drives quality improvement, "which is really the core function of CMS," she said.

CMS has reorganized QMVIG internally to accomplish a shift in accountability and care delivery, Ms. Durham noted. Externally, MACRA reinforces that focus, she said. "Our new

legislative direction authorizes payment and program reform that incentivizes value over volume, and this has provided CMS with the authority to develop MIPS and APMs.”

Ms. Durham stressed the need for ongoing stakeholder engagement with CMS to support the implementation of MACRA and the Quality Payment Program. “This is something where we need to have feedback early and often, and continue to have the feedback even after the initial implementation of these programs.”

## Quality Payment Program

**Presenter: Kate Goodrich, MD, MHS, CMS**

Elaborating on the theme of rewarding value over volume, Dr. Goodrich said CMS has set a goal of making 50% of Medicare payments through alternative payment models by the end of 2018. Progress toward that goal has already topped 30%.

While streamlining clinician quality reporting programs, CMS aims to deliver better-coordinated care and produce better health outcomes for patients, Dr. Goodrich said. “These changes are reflective of and in response to the concerns that too many quality programs, technology requirements, and quality measures get between the clinician and the patient,” she said. “That’s why we are taking a really hard look at what is working, what is not working, what is duplicative, and importantly, what is missing.”

MACRA will reform Medicare Part B payments to almost 600,000 clinicians in the United States, she said. MIPS initially will apply to physicians, physician assistants, nurse practitioners, clinical nurse specialists, and nurse anesthetists. CMS will consider adding more types of clinicians, such as physical therapists and dietitians, for later years. Low-volume practitioners (fewer than 100 patients or less than \$30,000 in reimbursement) and first-year participants in Medicare Part B are exempt.

Dr. Goodrich explained the Pick Your Pace approach, which allows three mechanisms by which eligible clinicians can participate in MIPS in 2017. *Test pace:* Clinicians who report the minimum data required, such as a single quality measure or clinical practice improvement activity, or four to five required advancing care information measures, will avoid incurring a penalty and may even receive a “very slightly positive” payment adjustment in 2019. *Partial year:* Clinicians who submit data for 90 days may earn a positive payment adjustment. *Full year:* Clinicians who submit such data for the entire year may earn a positive payment adjustment. The amount of an adjustment will depend on performance, not the length of time the clinician elects to report.

Dr. Goodrich described an alternative to MIPS for participation in the Quality Payment Program: Clinicians can earn APM incentive payments by joining an Advanced APM and taking on some financial risks related to their patient care. Quality measures for Advanced APMs are comparable to those for MIPS. Dr. Goodrich discussed the initiatives designated as Advanced APMs for 2017 and noted that a final list would be posted at QPP.CMS.gov in January 2017. CMS intends to include additional Advanced APMs in 2018.

In conclusion, Dr. Goodrich told the members, “The work of this technical expert panel is a key component to ensuring that the Measure Development Plan and Annual Report help to strategically guide meaningful measure development for the Quality Payment Program.”

## **MACRA and the Role of the TEP**

**Presenter: Mike Sacca, HSAG**

Mr. Sacca, MACRA team lead, thanked Ms. Durham and Dr. Goodrich and acknowledged Dr. Bodkin and Dr. Pierre Yong, Director, QMVIG, for their oversight and support of the MDP project.

Mr. Sacca reviewed the development of the MDP, which serves as the strategic framework for CMS clinician measure development. He noted that various affiliate organizations of TEP members provided feedback that shaped the final MDP. By participating in this meeting, this panel will contribute to the MDP Annual Report, a companion report that will inform stakeholders, Congress, and the public about progress toward addressing gaps identified in the plan.

The TEP will share clinical, methodological, and health information technology expertise and diverse perspectives. He noted that members already had completed a key aspect of the work by reviewing the draft *Environmental Scan and Gap Analysis Report* as part of the pre-assessment. Over the next year, he said, the TEP will continue the task of evaluating identified gaps, recommending new areas for development, and providing subject matter expertise to support the MDP Annual Report and future iterations of the MDP. In addition, the team is seeking their input about approaches, criteria, and metrics to evaluate CMS progress on the implementation of the MDP and addressing priority gaps in measure development.

## **Introductions and Ratification of the TEP Charter**

**Presenters: Jesse James, MD, MBA, Evolent Health, and David Seidenwurm, MD, Sutter Medical Group (TEP Co-Chairs)**

Drs. James and Seidenwurm introduced themselves and invited the members to do likewise and to disclose any potential conflicts of interest related to their service on the TEP. The roll call recorded 21 of 22 members present (one participating by webinar); the 22nd member arrived later and introduced himself.

The TEP ratified the draft charter by consensus. Appendix I contains the approved MDP TEP Charter with the list of members and the conflict of interest disclosure statements.

## **Patient and Caregiver Perspectives**

Mr. Sacca introduced the speakers, whose heartfelt and compelling stories remind participants to keep patient and caregiver perspectives front and center.

**Presenter: Caregiver (name withheld upon request)**

The speaker detailed a personal history of caring for family members for more than 40 years, starting as a teenager tending to seriously ill parents and grandparents. All suffered from multiple chronic health conditions.

The caregiver described the burdens of working through the Medicare system, managing finances, and fulfilling a host of other duties for her family members. She likened her predicament to a game of Jenga with her, the caregiver, “trying to hold up all those pieces ... and hoping that that structure doesn’t come crumbling down.”

One family member had Stage 4 ovarian endometrial cancer—diagnosed for more than a year as a urinary tract infection, she said. Finally, the patient became critically ill and saw a specialist, who diagnosed the cancer. The medical team then expanded to include an oncologist, a surgeon, and others to take care of a heart condition and diabetes. “That went on for five years of treatment. I’m very pleased to say that she went into remission, but it was very, very difficult not having someone leading the effort, coordinating the effort, communicating through this.”

Another family member left the hospital and entered a short-term rehabilitation facility. When the loved one went home, semi-bedridden, there was “no connection between the [primary care] physician and the hospital,” she said. “Basically, you’re on your own once you take that family member home.” She had to seek out clinicians who would come to the house because the patient’s longtime doctor would not provide follow-up care outside of the office. When a physician sought to repeat tests from a week earlier, “it took a lot of advocating, pushing, and saying, ‘I’m not going to pay for this. You need to get that information from the hospital.’ ... There’s no thought of quality; it’s just quantity.”

In conclusion, she said, “There needs to be a more coordinated effort, and the family member needs to be part of that team, not on the outside just getting directives of what they need to do and not having any support.”

**Presenter: Peggy Zuckerman, MSED**

Ms. Zuckerman remarked that the subject of diagnostic accuracy particularly resonated with her. She related her own experience with a misdiagnosis. A blood test performed before elective eye surgery unexpectedly revealed severe anemia. She was sent to an emergency department, where she was told she had a small stomach ulcer.

“I could have been given a simple sheet of paper that said—as I eventually found out—I should have seen a hematologist or a rheumatologist.” Instead, she said, she endured months of delay and testing. Finally, an ultrasound revealed a 10 cm tumor on her kidney and, “oh, by the way, metastatic disease in my lungs.” She responded well to treatment, “and here I am.”

She shared the caregiver representative’s concern about coordination of treatment. She noted the lack of patient education and resources to keep people out of hospitals and spare them unnecessary expense. “Is there no understanding that bedridden patients can’t just hop in the car and come down and see the doctor? This is foolish from a patient’s point of view.

“All of this goes to a lack of trust, a loss of trust in the system, and I think we’ve seen that played out in our country right now. There is tremendous skepticism—and I’m part of that—about how one handles large problems that will be intractable until you engage all parties, including patients.”

**General Comments and Feedback from the TEP**

The patient and caregiver presentations prompted discussion and questions about health literacy, patient education, and the capacity to self-advocate. The patient representative said she had been a preschool teacher with no medical background and stated, “You draw on all the resources that you have, and patients help one another.”

A clinician observed that doctors have incentives to see patients only in their offices. He suggested providing incentives for shared decision-making at the time of discharge. Another TEP member suggested a measure to incentivize giving test results by phone. The caregiver agreed that an office visit just to give a patient a report can be wasteful. A clinician called for innovative ways to get information to patients at home. Another clinician mentioned low literacy in many rural communities and said it is difficult to educate patients who do not come in for a yearly visit, stating, “That's how I find cancer. That's how I find problems and I head them off.”

## Overview of the Environmental Scan

**Presenter: Kendra Hanley, MS, HSAG**

Ms. Hanley described how the team identified gaps in clinician-level measurement based on the focused priorities, topics, and specialties within Section V of the MDP. First, she defined certain quality measurement terms and showed an example of the progression from a measure *domain* (patient safety) to a *topic* (medication safety) to a *subtopic* (adverse drug events – anticoagulants). A high-level measure *concept* (anticoagulant monitoring) leads ultimately to a *measure* of health care quality based on detailed specifications.

Ms. Hanley then referred to the CMS Quality Strategy (discussed in the CMS Opening Remarks) and showed how the six quality domains and applicable topics, together with the seven specialties of interest, comprise the conceptual framework (appendix IV). To populate the table with subtopics—138 total—the project team reviewed key national reports and compiled stakeholder input, national priorities for measure development, and public comment submitted for the proposed Quality Payment Program rule and the MDP.

Ms. Hanley next discussed the process used to systematically carry out the scan of existing clinician quality measures. The team surveyed major measure databases, CMS quality reporting programs, and various federal agencies that also use measures. The results showed that of 989 measures scanned, 159 unique measures were applicable to the conceptual framework under the six quality domains, 11 topics, and seven specialties. Ms. Hanley noted that the team included only clinician measures for which basic information, including numerator/denominator exclusions, was available. Each applicable measure was mapped to a single topic-subtopic-specialty combination, and measures applicable to more than one disease- or condition-specific category were assigned to general medicine/ crosscutting.

“The scan of the existing measures and the mapping revealed that the majority of the subtopics do not have any existing measures,” Ms. Hanley stated. “The work on the environmental scan really confirmed that those priorities that were included in the Measure Development Plan truly are areas where there are gaps in measurement.”

Ms. Hanley noted that the time frame for this meeting did not permit the TEP to discuss all 88 subtopics rated in the pre-assessment, so the project team limited the initial focus of the TEP discussion to 15 highly rated subtopics across the target specialties.

## General Comments and Feedback From The TEP

A TEP member noted the usefulness of the gaps included in the conceptual framework, and stated that if publicly available, the conceptual framework could help professional societies think about how to generate performance measures.

Dr. Campbell said the team would work closely with CMS in seeking to make TEP findings and gap analysis results available to stakeholders before the publication of the MDP Annual Report.

A member interested in alignment asked how many measures finalized for the Quality Payment Program rule did not appear as part of the environmental scan. Ms. Hanley said the team's review did not specifically address that, but she indicated that the question would be worth future consideration.

Another member commented that categories for primary care physicians are not well reflected. Comprehensiveness and longitudinal relationships are also missing. She asked how to call attention to measures that don't fit in to the grid. Dr. Campbell said TEP members will have an opportunity to discuss what is missing from the framework. The TEP also will discuss the evaluation criteria to assess progress on measure development for the Quality Payment Program, which will encompass issues of alignment and harmonization.

A member praised the work on the environmental scan but noted that no assessment was done to indicate whether existing measures were actually good for the purpose intended. Dr. Campbell acknowledged that the evaluation of existing measures is a part of the overall picture, while noting that the panel's first challenge is to identify gaps.

A member observed that the final rule includes measures approaching topped out status, "so where a gap may not exist today, it may exist in 2 to 3 years as those measures are removed." Ms. Hanley and Dr. Campbell said the TEP's input "definitely will be part of our thinking and part of our strategy."

## Overview of the Pre-Assessment

**Presenter: Kyle Campbell, PharmD, HSAG**

Dr. Campbell described a two-pronged approach used in the pre-assessment process to evaluate measure topics and subtopics for the Quality Payment Program, addressing patient and caregiver perspectives as well as a pre-assessment by the TEP.

First, to obtain the person and caregiver perspectives, semi-structured telephone interviews were conducted to assess the importance to patients and caregivers of topics within the MACRA domains and aspects of patient care and interaction with a care team. Interviewees included 20 patients and five caregivers who had experience with the targeted specialties identified as priorities in the MDP.

Social, demographic, and geographic variations were considered, resulting in the recruitment of participants aged 65 to 77 who live in California, Indiana, Florida, and Maryland. The majority (64%) were Caucasian, 24% were African American, and the remainder were Hispanic (8%) and Native American (4%). The individuals discussed their personal health care experiences, including interactions with primary care practitioners, specialists, and broader care teams as applicable. They also ranked 10 measure topics, producing a collective ranking that placed

**Figure 1: Patient/Caregiver Pre-Assessment Topic Ranking**

Ranking	Topics
1	<b>Diagnostic Accuracy</b>
2	Detection/Prevention of Chronic Disease
3	<b>Personal Preference and Shared Decision-Making</b>
4	<b>Medication Safety</b>
5	<b>Assessing Team-Based Care</b>
6	<b>Outcomes</b>
7	Effective Use of Technology
8	<b>Patient-Reported Outcome Measures</b>
9	Overuse
10	Population Health

**Figure 2: TEP Pre-Assessment Topic Ranking**

Ranking	Topics
1	<b>Outcomes</b>
2	<b>Diagnostic Accuracy</b>
3	<b>Patient-Reported Outcomes (related to Clinical Care)</b>
4	Detection/Prevention of Chronic Disease
5	<b>Medication Safety</b>
6	Overuse Measures
7	Population Level Outcomes
8	<b>Personal Preference and Shared Decision-Making</b>
9	<b>Assessing Team-Based Care</b>
10	Effective Use of Technology
11	Patient-Reported Outcomes (related to Patient Experience)

**Note:** Subtopics within the bolded topics were selected for TEP discussion.

diagnostic accuracy at No. 1 (Figure 1). TEP members used the 1–9 Likert scale to rank the importance of 11 topics as quality of care issues. Dr. Campbell noted that outcomes, diagnostic accuracy, and patient-reported outcomes topped the TEP list (Figure 2), including two that were combined for the patient and caregiver interviews. TEP pre-assessments rated 73 subtopics as important; 15 in the moderately important range; and none as “not at all important.” (See the 88 subtopics, organized by specialty, in Appendix V.)

Dr. Campbell described how the team narrowed the list to a manageable number for discussion, ranking “important” subtopics by median score and standard deviation (degree of agreement, as indicated by the dispersion of ratings). “For general medicine crosscutting, since a lot of the topics cross the various specialties, we decided we’d take the three highest-ranked subtopics for discussion, and then for each remaining specialty, we selected the two highest-ranked topics that were unique to that specialty,” he said.

“As we walk through palliative care and oncology and radiology, you’re going to see some common themes have bubbled up to the top. We’re only going to have the conversation once, so it gives us an opportunity as we go down to the next specialty to have a unique conversation while we have you here.”

He explained that presenters would review the collective TEP ratings, as well as TEP comments and those of patients and caregivers, to frame an open discussion on each subtopic. TEP

members would have their individual rankings and comments to remind them of their choices. Then panelists would reassess each gap area as a priority for measure development by CMS.

Dr. Campbell confirmed that members could suggest other subtopics to include in the conceptual framework, which the team would review with other feedback. The TEP also will have an opportunity to review and comment on the team's recommendations for adding to the conceptual framework in the draft MDP Annual Report, he said. He noted that members could abstain from a vote and reminded them that they could provide input after the meeting.

### **General Comments and Feedback From the TEP**

A member asked how gap subtopics not included in the day's discussions and votes would be factored and prioritized into the TEP's work and measure development. Dr. Campbell responded that the TEP would have additional opportunities to prioritize remaining subtopics. New items also could be included in future iterations of the MDP Annual Report.

## **Discussion of the Priority Subtopics by Specialty**

### **General Medicine/Crosscutting**

**Presenters: Kyle Campbell, PharmD, HSAG; Mary Fermazin, MD, MPA, HSAG**

Dr. Campbell introduced the three highest-rated subtopics for discussion: *Outcomes: multiple chronic conditions*; *Personal Preference and Shared Decision-Making: patient understanding*; and *diagnostic accuracy* (under the topic by the same name). "I think it's important to note that just because something didn't fall into the top three groups [does not mean] that it's not going to be recognized as important," he said. "It will be included in the MDP Annual Report. But we're suggesting potentially that these are initial priorities for measure developers to consider."

*Outcomes: Multiple chronic conditions*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 8.0

Dr. Fermazin offered some context for the first subtopic: Americans with more than two chronic conditions constitute one-fourth of the population and account for 66% of health care spending.

### General Comments and Feedback From the TEP

Members called the subtopic too general and cited the need for an appropriate definition of complex conditions. Some proposed patient-centered quality-of-life metrics and longer-term population health outcomes as priorities to pursue. Others mentioned risk stratification, actionability, care goals, medication management, and patient-reported outcome measures of functional status. One member observed that measures are slower to change than clinical practice guidelines and that stewards would have to react quickly to capture changes to the multiple measures involved.

Noting a tension between accountability and quality of care, members voiced concerns about factors beyond a physician's control, financial burdens, and clinicians who treat the same patient but do not interact. A member wondered, "What if one doctor reports [a measure] and the other doesn't?" Another asked, "If the oncologist changes the score of the patient, how will that affect me?" Members debated who has the obligation to ensure a patient's overall well-being, and one

asserted that all doctors bear the responsibility for the patient’s quality of life, long-term goals, and well-being.

Through the onsite voting, TEP members confirmed the priority of this subtopic with the caveats suggested.

*Personal Preference and Shared Decision-Making: Patient understanding*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 4.0 (moderately important)

Dr. Campbell reviewed the concerns of interviewed patients and caregivers about feeling prepared for their role to participate in their care. They want to understand the reasons for care decisions and information about medications, tests, and procedures. In the words of one interviewee, “The caregiver needs to be taken seriously. We are left to care for the patient when they’re gone.”

*General Comments and Feedback From the TEP*

TEP members agreed on the importance of personal preference and shared decision-making but expressed doubts about an effective measurement strategy. One member noted the difficulty of assessing a patient’s literacy level or communication style and questioned whether shared decision-making would amount to “a top-down announcement ... very similar to informed consent—you know, ‘Here’s our plan for you. Sign here.’” Another member suggested care goal achievement as a higher priority.

Various panelists doubted the readiness of their specialties to support shared decision-making in a meaningful way. One cited experience in cautioning against prioritizing this subtopic: “In CPC [Comprehensive Primary Care ACO], we did go down this pathway, and we used specific tools and were measured by them ... and at the end of three years, the clinics across the country came together and said this was not a practical way to perform shared decision-making.”

A co-chair noted points of discussion: “Would measurement even be effective if it could be done at all? We have to define whether this is a formal concept ... whether or not to include family, community caregivers. We need to look at unintended consequences and coordination among different programs. There may be higher priorities, and we have to look at this in the context of the patient’s situation.”

In summary, the discussion and vote indicated general TEP agreement that the subtopic, though important, should not be an initial priority for measurement. Dr. Campbell noted that the rich dialogue had led members to reconsider their high individual pre-assessment ratings and revote on the basis of feasibility concerns. In doing so, he said, TEP members were fulfilling the purpose of this multi-stakeholder meeting.

*Diagnostic Accuracy: Diagnostic accuracy*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 7.0 (important)

Dr. Campbell referred to the interviews of patients and caregivers, who said diagnostic accuracy “goes hand-in-hand with detection and prevention.” He cited other statements: “I want to know

that they've got it right.” “If you're diagnosed properly, you have a better chance to get better.” “If you're not diagnosed properly, you can't be treated.”

#### General Comments and Feedback From the TEP

A TEP member noted agreement among clinicians and patients in ranking this subtopic highly. She asked for consideration of overuse measures as a balancing measure to diagnostic accuracy and stressed the importance of bidirectional sharing. Another member proposed to broaden “bidirectional” to encompass broader clinician communication. A member mentioned a need for a national patient identifier to align data across settings and specialists.

The TEP discussed the overuse and cost consequences of “perfect” diagnosis, as well as the cost of false positives. Noting a distinction between diagnosis and problem recognition, a clinician said 70% of primary care practice occurs without a specific diagnosis. Another member gave an example of excess in pursuit of a diagnosis: “I don't need to get a culture out of a child's ear, rupturing their eardrum, to find out ... whether it's a viral infection versus bacterial.”

The patient representative countered that clinicians need time to think about more complex diagnoses. “I hear doctors say over and over again, ‘I don't get paid to think,’ which is a pretty astonishing thing for patients to hear.”

A member described an approach to measurement: “You have to build the measures around the diagnoses where that importance is critical and definable.” Another member cited lapses in communication between referring physicians and specialists such as radiologists and pathologists; he suggested a process for reporting unexpected findings as “low-hanging fruit” for measurement.

The median vote reaffirmed the panel's assessment of this subtopic as important to measure.

#### *Other Subtopics for General Medicine/Crosscutting*

The pre-assessment elicited suggestions regarding meaningful access to clinical data and support; ability to contact a physician; care plans integrating physical, mental, and social needs; personalized care; and balancing of competing goals. Comprehensiveness of care and professionalism were other concerns.

The TEP discussed identifying social determinants as an element of care plans. Expressing concern about continuity of care, a member suggested a metric for how often patients are “fired” for being risky or noncompliant—so-called lemon-dropping. Another member replied that the clinician may be the one dropped by the patient because of a change in health plan coverage. In ACOS, “Medicare “tells you who your patients are after the fact,” another clinician said.

Also mentioned were antimicrobial stewardship, “valid and rigorous” population health measures, EHR interoperability, and overtesting near the end of life with respect to patient preferences.

## **Mental Health/Substance Use**

**Presenter: Kyle Campbell, PharmD, HSAG**

Dr. Campbell introduced the top-rated subtopics for this specialty: opioids and medication management/reconciliation, both under the topic of Medication Safety.

*Medication Safety: Opioids*

Pre-assessment median rating: 9.0 (extremely important)

Post-discussion median rating: 8.0 (important)

*General Comments and Feedback From the TEP*

Members acknowledged the importance of preventing abuse or inappropriate prescribing but urged striking a balance to ensure appropriate opioid treatment for persons “who are truly in pain and truly need it”—in particular, cancer and sickle cell patients and end-of-life populations.

One member observed, “We have to be cautious with how we design these metrics so that it does not become overly burdensome or penalize oncologists who are truly doing what’s right.”

Another noted “fear among clinicians to prescribe the opioids, even under appropriate guidelines,” to patients in rural and deep urban areas.

Members suggested the subtopic may be better categorized as crosscutting rather than mental health. Dr. Campbell noted that a mental health diagnosis is a comorbidity with opioid abuse.

Other points discussed: Any measure regarding checking a prescription drug monitoring program (PDMP) should harmonize with what may be developed under the MIPS performance category of improvement activities. Also, it was noted that PDMPs currently do not contain Department of Veterans Affairs (VA) data.

Onsite voting affirmed the importance of the subtopic to the TEP for crosscutting quality measurement in harmony with measures for other performance categories. The panel expressed a desire to investigate other subtopics for mental health.

*Medication Safety: Medication management/reconciliation*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 5.0 (moderately important)

Dr. Campbell noted that the primary concern of interviewed patients and caregivers was interactions between medications. “Doctors must look at what you are taking before they prescribe something else,” one said.

According to those interviewed, clinicians do not always explain the reasons they prescribe medications or change the type, strength, or frequency. Caregivers turn to pharmacists, not the physicians, to ensure their loved ones are safely medicated. “The doctor should call the pharmacist. ... It doesn’t happen.”

*General Comments and Feedback From the TEP*

A TEP member who conducts interview studies with clinicians remarked that “the providers feel like they’ve been turned into professional pill pushers, and patients feel like they’ve been turned into professional pill takers. ... The measures we ended up prioritizing here for mental health services serve to support that.”

Another member discussed patients’ issues with medication interactions and sought clarification about the depth of analysis associated with medication reconciliation. Members referred to “checkbox measures”; one suggested a “richer, deeper” process with EHR backup and reference to guidelines.

Dr. Fermazin clarified that medication management is more than comparing lists. She noted that quality improvement organizations employ a comprehensive method assessing appropriate medications and dosage, interactions, and more in the effort to reduce hospital readmissions. Members cited technology, including electronic health records, as an obstacle to effective measurement. A TEP member cautioned about being “held hostage to the inadequacies of the electronic medical records and checkbox medicine.”

The post-discussion vote, de-emphasizing medication management/reconciliation as a measurement priority for mental health clinicians, reflected the panel’s expressions that a crosscutting approach can better address the subtopic.

#### *Other Subtopics for Mental Health/Substance Use*

The TEP representative nominated by the American Psychiatric Association regarded both subtopics as more crosscutting than limited to the behavioral health population. He suggested more focus on diagnostic accuracy and appropriateness of treatment in the areas of suicide prevention and screening for depression, anxiety, and alcohol and substance use. Others suggested metrics for quality of life, the burden of disease, and adherence to practice guidelines.

One member proposed that system-of-care metrics with respect to access could encourage the use of telehealth, colleague to colleague, in underserved areas. Medication-assisted treatment for persons with alcohol and substance use disorders and coordination of care for Alzheimer’s disease and depression were other suggested subtopics.

Another member acknowledged a responsibility to better prepare clinicians of the future and to consider “what role some of these conundrums play in medical education.”

### **Palliative Care**

**Presenter: Mike Sacca, HSAG**

*Outcomes: Symptom management*

Pre-assessment median rating: 9.0 (extremely important)  
Post-discussion median rating: 9.0

Mr. Sacca reviewed previous TEP and patient/caregiver comments for the highest-rated subtopic, *symptom management*. He noted that those comments confirmed the importance of this subtopic in helping to maintain or improve the comfort of a patient as disease progresses. TEP members stated that palliative care should focus on end-of-life issues, that pain control is paramount, and that standardized tools (e.g., the Omaha System) should be used to assess quality of life and symptom management. Mr. Sacca added that while pain control is obviously important, symptoms such as nausea, vomiting, and loss of appetite should not be overlooked. He noted these as topics of concern during a National Quality Forum webinar earlier in the week: “Strategies for Change – A Collaborative Journey to Transform Advanced Illness Care.” .

#### *General Comments and Feedback From the TEP*

During the meeting, members disputed that palliative care is just for the end of life or just about pain. They stressed coordination of care. A physician praised the Oncology Care Model for promoting an early plan for end of life with patient participation. The patient representative noted the need to educate both patients and physicians regarding the difference between palliative care and hospice care.

This subtopic remained the TEP’s highest-rated priority for measure development after discussion and voting.

*Outcomes: Maintaining dignity and independence*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 8.0

Mr. Sacca noted that previous TEP comments supported the importance of this subtopic, suggesting a consensus that measurement would improve care for persons in advanced stages of illness. He also noted a proposal to decouple the concepts of maintaining dignity and independence—to independently measure the two concepts.

General Comments and Feedback From the TEP

Members discussed the difficulty of defining those concepts and considered what should be patient-reported. They expressed an interest in level-setting and early dialogue between clinicians, patients, and caregivers to adjust expectations as a condition or disease progresses.

Members also discussed aligning care with advance directives, communication and interoperability, balancing patient safety against public safety, and the use of standard quality-of-life measurement tools. The overarching theme was communication and alignment with the patient’s definition of dignity and independence.

The TEP discussion and vote affirmed the subtopic as a high priority for measure development for this specialty.

*Other Subtopics for Palliative Care*

TEP members mentioned advance care planning and directives, coordination with primary care, and disparities and cultural sensitivity around issues of death and dying. Mr. Sacca noted the importance of patient preferences regarding “peaceful death and dying,” an important topic of discussion during the recent NQF webinar.

## **Oncology**

**Presenter: Ann Clancy, MBA, RN, HSAG**

Ms. Clancy noted that discussions of palliative care subtopics had largely addressed the highest-rated oncology subtopics—pain control and hospice/end-of-life metrics—and that general medicine/crosscutting encompassed the next two priorities for this specialty. She therefore introduced subtopics No. 5 and No. 6 for this discussion: *Stage-specific survival rates* and *functional status pre-/post-treatment*.

*Outcomes: Stage-specific survival rates*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 7.0 (important)

General Comments and Feedback From the TEP

Ms. Clancy called on a TEP member to explain the “Will Rogers effect” mentioned in a pre-assessment comment. The member explained that in cancer staging, the term refers to the impact of “upstaging” patients: The sickest patients in the lower stage then become the healthiest patients in the upper stage. Measurement of this subtopic would have to use specific diagnostic testing to counter that effect, the member explained.

Other panelists noted that there are many ways to look at survival rates and various standardized ways to treat cancer. Diagnoses and stages also vary for different cancers. The TEP discussed small sample sizes and proposed metrics for disease-free or progression-free survival. A member advocated for population benchmarks based on accurate diagnosis and staging and recommended the American Society of Clinical Oncology as an important stakeholder organization to consult in development of such measures.

*Patient-Reported (clinical) Outcome Measures: Functional status pre-/post-treatment*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 7.0 (important)

Ms. Clancy noted that patients and caregivers said it is important for clinicians to explain things and listen to them so they can establish care goals. Prior TEP comments also focused on outcomes such as care goal achievement and effective engagement of the patient and caregiver.

*General Comments and Feedback From the TEP*

A TEP member asked whether “pre-” and “post-” referred to a specific course of radiation or the entire management of a cancer diagnosis, with remission as the goal. Ms. Clancy noted that as this discussion was not about a measure in development at this point, either could apply.

Members described functional status issues that oncology specialists routinely address, such as swallowing ability after radiation. One noted that certain side effects are to be expected and should be measured in that light. Another member cautioned about small sample sizes.

The co-chair summarizing the discussion noted the need to distinguish between patients with an expectation of returning to normal health versus those who will have ongoing problems. Episodes and time scales need to be defined carefully, he said, and it must be understood that there are overlapping episodes. Finally, he noted the importance of balancing risk and reward: The subtopic is technically difficult to address but theoretically desirable.

*Other Subtopics for Oncology*

TEP members offered the following suggestions in their pre-assessment comments: psychiatric comorbidity, telemedicine for access and second opinions, complication rates for surgery and radiation, and avoidance of overtreating slow-growing or non-life-threatening cancers.

## **Pathology**

**Presenter: Kendra Hanley, MS, HSAG**

Ms. Hanley reminded the TEP that because of the previous crosscutting discussion of diagnostic accuracy, including timely diagnosis (the No. 2 ranked subtopic for this specialty), this session on pathology would focus on two aspects of team-based care: *Correlation of findings* (No. 3) and *Timely and directed patient treatment decision support and care coordination efforts* (No. 4). Although patients and caregivers did not address pathology and radiology by name, Ms. Hanley noted that they raised concerns about timely diagnosis and sharing information about results that are relevant to both specialties.

*Assessing Team-Based Care: Correlation of findings*

Pre-assessment median rating: 7.5 (important)

Post-discussion median rating: 7.0 (important)

### General Comments and Feedback From the TEP

TEP discussions addressed the challenge of measuring diagnoses, the concepts of actionability and accountability, and factors ranging from adequacy of specimens to systemic gaps in care. Members described breakdowns in connections between ordering physicians and specialists, the result of which can be failures to communicate critical values or unexpected results, as well as overtesting.

One TEP member explained that the ability to correlate findings will depend on the setting in which a pathologist practices. Those clinicians who practice in academic medical centers or large integrated delivery systems with access to ancillary departments through the electronic health record (EHR) will be able to correlate findings. Small pathology practices that lack access to reports and results from other clinicians will have more difficulty in correlating findings.

The same clinician raised concerns about metrics in the Medicare “Part A world” of pathology that may be designed at the facility or system level extending to eventually affect Part B. Individual clinicians could potentially be held accountable for processes or outcomes outside of their control that may directly impact their reimbursement. She also noted that hospital laboratory medicine is highly regulated, as accreditation requires proficiency testing and documentation of policies.

In counterpoint, a member said having a policy alone is inadequate; it matters what the policy is. Another member suggested that correlation of findings might be more appropriate to measure at the plan level.

In summary, a co-chair noted the importance of a multidisciplinary approach to involve pathology in the discussions with the care team. In addition, many challenges related to actionability, accountability, and systems of care in this area were raised that will need to be addressed as measures are considered for this subtopic. Through the onsite voting, TEP members confirmed the priority of this subtopic.

### *Assessing Team-Based Care: Timely and directed patient treatment decision support and care coordination efforts*

Pre-assessment: Median 7.0 (important)

Post-discussion: Median 8.0 (important)

Ms. Hanley reviewed previous comments from the TEP pre-assessment, which stressed clinician communication and coordinated delivery of results to the patient.

### General Comments and Feedback From the TEP

A TEP member noted the importance of directed patient treatment decision support and care coordination but said “timely” is too subjective and should be considered a separate subtopic. By consensus, the panel agreed to remove “Timely and” from the title and voted based on the amended language, confirming the priority of the revised subtopic.

### *Other Subtopics for Pathology*

In the pre-assessment, TEP members noted the potential for metrics of patient/caregiver experience for clinicians who have patient interactions, such as those who perform fine-needle aspirations and biopsies. They also proposed the following subtopics:

- Percentage of cases where diagnosis is changed

- Relaying of unexpected findings
- Special testing overuse
- Time to preliminary diagnosis after submission of tissue samples where malignancy is suspected

After onsite votes on the two subtopics, members discussed making reports meaningful from the patient perspective. A clinician mentioned a readability index being implemented at his practice. “It’s surprisingly hard, even for a normal report, to have a medical document that’s readable at the fifth-grade or eighth-grade level,” he said, “but I think it’s a worthy goal.”

Other members discussed the trend to encourage patients to review their own test results through patient portals; however, they proposed balancing this type of access with processes to ensure that certain test results are communicated appropriately and in a timely manner. One clinician explained that his facility allows physicians two to four days to access and provide the information to the patient, after which time the results are available directly through the patient portal. The thinking, the clinician said, is that, “it’s better for the patients to get it without a physician than for the patient to never get the information at all.”

The caregiver representative said the discussion suggested the need for practices to have a case manager. “There needs to be someone other than the physician whom, once that clinical assessment is made and the plan is in place, ... family members and patients can work directly with to make sure that these things happen,” she said. Another TEP member said oncology nurses and transplant coordinators are familiar with that role.

## Radiology

### **Presenter: Kendra Hanley, MS, HSAG**

As previous discussions of diagnostic accuracy had encompassed cancer detection (ranked No. 1 for this specialty), Ms. Hanley introduced the subtopics for consideration under *Assessing Team-Based Care: Communication between radiologists and clinicians regarding final results reports* (No. 2) and *Correlation of findings* (No. 3).

*Assessing Team-Based Care: Communication between radiologists and clinicians regarding final results reports*

Pre-assessment median rating: 9.0 (extremely important)

Post-discussion median rating: 8.0 (important)

### General Comments and Feedback From the TEP

Primary topics of discussion included attribution, systems of care, and communication, including availability for consultation before and after examinations. Panelists emphasized bidirectional flow of information to communicate clinical results and to “close the loop.” They said available technology should be considered as a means to facilitate this feedback loop. Members stressed the importance of thinking about radiology as a distinct specialty, but also as part of the care team.

Members discussed burdens of reporting findings on recipients as well as originators of reports and proposed metrics focusing on appropriateness of tests being ordered. Through the onsite voting, TEP members confirmed the priority of this subtopic.

### *Assessing Team-Based Care: Correlation of findings*

Pre-assessment median rating: 7.0 (important)

Post-discussion median rating: 7.0

#### General Comments and Feedback From the TEP

Members discussed exclusions regarding specialty and volume and correlations between biopsy and interventional radiology. A patient advocate stressed a need for access and consultation before and after examinations. The caregiver representative urged that clinicians include family members in their communications to ensure the feasibility of diagnostic and care alternatives. The discussion concluded with a vote that confirmed the priority of this subtopic.

#### *Other Subtopics for Radiology*

One member suggested an overuse measure related to recommending additional diagnostic tests that do not change management of a disease or condition. Another member agreed, saying there could be a way of structuring the measure that would not leave the patient undiagnosed. A member suggested a metric analogous to end-of-life chemotherapy.

## **Orthopedic Surgery**

**Presenter: Mary Fermazin, MD, MPA, HSAG**

Dr. Fermazin guided the TEP into a discussion of the top two subtopics: *Outcomes: return to surgery* and *Assessing Team-Based Care: Surgical care continuum* (preoperative, perioperative, intraoperative, postoperative, and postdischarge).

#### *Outcomes: Return to surgery*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 7.0 (important)

#### General Comments and Feedback From the TEP

Members discussed the need to collect data carefully to allow for risk adjustment and the adequacy of coding to describe all the events that occur. An orthopedic specialist noted concern that through errors of assignment, doctors could be found at fault for taking a patient to surgery to eradicate an infection that came from somewhere else. He also noted that NQF #1550<sup>v</sup> could be a template for such measurement but is not regarded as adequately risk-adjusted at the hospital level and would be difficult to apply to individual physicians. Members noted that rates are very low for surgical errors, including return to surgery, so relevant events would be rare. A member questioned whether measurement would differentiate quality. Another countered that unplanned return to surgery is a patient safety issue: “You want to know if your doctor is an outlier.”

#### *Assessing Team-Based Care: Surgical care continuum*

Pre-assessment median rating: 8.0 (important)

Post-discussion median rating: 6.0 (moderately important)

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<sup>v</sup> Hospital-level risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)

Dr. Fermazin reviewed prior comments of the TEP regarding the importance of team-based care, postoperative pain management coordination with primary care, and comprehensive assessment of post-acute care, including physical therapy.

#### General Comments and Feedback From the TEP

The orthopedic surgery representative on the TEP questioned the feasibility of this subtopic for MIPS, as the longitudinal linking of processes as a measure would have prohibitive reporting burdens, whereas the longitudinal cost-effectiveness over the perioperative episode is potentially more readily captured in terms of costs incurred and/or duplicated. He noted that the Comprehensive Care for Joint Replacement bundled payment model already captures this measurement period, but not specifically. He said the subtopic would better apply to APMs; a more specific model would be a “surgical home APM” with its own cost and quality metrics.

The discussion led a member to ask whether APMs are within the scope of this TEP. Dr. Bodkin advised that while MACRA prescribes measures for APMs “comparable” to those for MIPS, the latter are the primary focus of this TEP.

The post-discussion vote reinforced the TEP comments that, at least for MIPS, this subtopic is a lesser priority for measure development than the pre-assessment suggested.

#### *Other Subtopics for Orthopedic Surgery*

The orthopedic specialist noted the need to evaluate patients over a one- to five-year postoperative period in addition to measuring outcomes from a singular surgical episode that might be as short as 90 days.

#### **Additional Considerations From the TEP**

- Consider innovative ways to provide information to patients, supplemental to in-person office visits (e.g., phone, portal, telehealth), to strengthen person and family engagement in high-quality care.
- Identify and analyze measures that were finalized in the Quality Payment Program rule but did not map to any of the priority areas identified within the environmental scan conceptual framework.
- Conduct a broader gap analysis specific to primary care, including an evaluation of current measures, to determine the extent to which the measures reflect the actual work of primary care providers in the field.
- Rerank topics and subtopics based on the multi-stakeholder discussions and votes at the November meeting, which suggested a shift in priorities for certain potential areas of measurement.

## **Framework for Evaluating the Impact of the MDP**

### **Presenter: Kyle Campbell, PharmD, HSAG**

Dr. Campbell reviewed the 16 vision statements by which the MDP, incorporating input and comments from stakeholders and HHS agencies, describes a future measure portfolio for the Quality Payment Program (Appendix VI). He reminded panelists that they responded to a question in the pre-assessment: “Do you agree with the following? The vision statements could be used as the basis to evaluate the impact of the MDP on measure development for the QPP.”

“And this is really what we wanted to start as the basis of the evaluation criteria, so that as measures get developed for MIPs, we could potentially benchmark them against some of these standards in the portfolio and say, ‘Yes, we are achieving approximately X% of these various vision statements.’ ... So most of you said this is a really good place to start.”

Dr. Campbell noted that the meeting had already elicited discussions relevant to this evaluation, such as whether clinician measures are driving better clinical care. The team intends to involve the TEP in refining this evaluation framework and creating metrics to operationalize the criteria, he said, so a future MDP Annual Report can inform stakeholders: Are we really moving the whole portfolio of measures toward what we want in terms of this vision? Or are we going away from it? He invited members of the TEP to share their thoughts.

A member stressed the importance of minimizing the burden of reporting. More than just reducing the absolute number, tying measures to the clinical workflow is a priority. Another member expressed concern about the scope of measurement: “Are you really hitting those things that are chronically contributing to costs and suffering in the country?”

The member urged a longer-term, cumulative view of such conditions as osteoarthritis and coronary artery disease. “A patient presents with angina at the beginning of their 10 years, but where do they end up 10 years later? We need that kind of longitudinal quality captured as well as what happened in 1 week.”

## **Concluding Remarks and Next Steps**

### **Presenter: Kyle Campbell, PharmD, HSAG**

Dr. Campbell thanked the panel, the co-chairs, and the team supporting the event and discussed the project timeline and activities for the TEP.

He said the members would be asked to register for a TEP SharePoint site where they will access resources and documents posted for TEP review. The team will summarize the TEP proceedings in December and analyze the TEP recommendations and additional considerations to support the drafting of the 2017 MDP Annual Report.

The TEP review of the draft Annual Report is intended for February 2017. In the meantime, Dr. Campbell welcomed additional feedback and members’ evaluations of the meeting.

After publication of the MDP Annual Report on May 1, 2017, “we’ll turn our attention to the TEP comments and evaluation of the initial meeting, and to the priorities that we need to be thinking about for the 2018 report,” he said. “It’s been an incredibly rich discussion, and really rewarding. And we really appreciate all of the input and feedback,” he said. “I think that this is going to make for a very interesting Annual Report.”

## IV. APPENDICES

### Appendix I – TEP Charter

The Call for TEP is posted online at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TechnicalExpertPanels.html#911>.

## Technical Expert Panel Charter

### Project Title:

CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)

### Project Technical Expert Panel (TEP) Dates:

November 2016–November 2017

### Project Overview:

The Centers for Medicare & Medicaid Services (CMS) has contracted with Health Services Advisory Group, Inc. (HSAG) to develop and update the *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*. CMS initiated this project under the contract titled Impact Assessment of CMS Quality and Efficiency Measures. The contract number is #HHSM-500-2013-13007I; Task Order #HHSM-500-T0002. The *CMS Quality Measure Development Plan* (MDP) is mandated by the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)<sup>1</sup> and serves as a strategic framework for clinician quality measure development to support MIPS and advanced APMs. These programs are now known as the Quality Payment Program (QPP). To meet the requirements of the statute, CMS posted the draft MDP on December 18, 2015, and opened a public comment period through March 1, 2016.<sup>1</sup> The revised MDP incorporates key themes and specific recommendations identified during review of the public comments. The plan was posted on the CMS.gov website on May 2, 2016, to be followed by updates annually or otherwise as appropriate.<sup>2</sup> Not later than May 1, 2017, and annually thereafter, a report on the progress made in developing quality measures for the QPP is required to be posted on the CMS website.

HSAG is convening a technical expert panel (TEP) to proactively engage stakeholders (e.g., frontline clinicians, patients/caregivers, and professional societies), to provide expertise, and to contribute direction and thoughtful input related to future clinician quality measure development to support the QPP.

### Project Objectives:

In supporting and informing the QPP as a key driver in delivery system reform and the critically important transition and progression to value-based payment, the primary objectives of this project include:

- ◆ Assess the landscape of current measures, measurement gaps, and measure development priorities for the CMS Quality Payment Program, consisting of MIPS and advanced APMs.
- ◆ Prepare the mandated annual report on progress in developing quality measures for the QPP.
- ◆ Develop and apply criteria to evaluate CMS progress on measure development for the QPP.
- ◆ Support the continuing evolution of the MDP as a strategic framework for clinical quality measure development for the QPP.

<sup>1</sup> Section 1848(s)(1), (5) of the Social Security Act, as amended by section 102 of MACRA

<sup>2</sup> Section 1848(s)(1)(F), (3)(A)

**TEP Objectives:**

The TEP will assist the project team in gathering and evaluating information for the annual progress report on measure development for the QPP and for future updates of the MDP. The project team will consider the recommendations of the TEP and convey members' feedback to CMS to ensure that policy decisions take stakeholders' interests into account.

**Scope of Responsibilities:**

Core duties of TEP members shall include the following:

- ◆ Provide input on information gathered by the project team, including gap analyses of clinician quality measures.
- ◆ Review the annual progress report and provide feedback.
- ◆ Recommend approaches to evaluate CMS progress in developing measures for the QPP.
- ◆ Provide input on the MDP and propose criteria for future updates.

TEP members are expected to commit to the anticipated time frame needed to perform the functions of the TEP. To participate fully in discussions, members should become familiar with the MDP and read briefing materials prepared for their review before meetings.

As a contractor for CMS, HSAG must ensure independence, objectivity, scientific rigor, and balance in project activities. Potential TEP members must disclose any current and past activities that may pose a potential conflict of interest for performing the tasks required of the TEP. If conflict of interest status changes at any time during service on this TEP, the member must notify HSAG and the TEP chair before participating in any subsequent meetings.

**Guiding Principles:**

The MDP outlines the strategic vision for measure development for MIPS and advanced APMs. The MDP is built on the priorities and principles described in the National Quality Strategy (NQS), CMS Quality Strategy, CMS Measures Management System (MMS) Blueprint, CMS Guiding Principles for Measure Development, and National Quality Forum measure evaluation criteria. Together with the statutory requirements of MACRA section 102, this strategic vision will guide the efforts of the TEP to support the annual progress report and future updates of the MDP.

Participation on the TEP is voluntary. Potential members should understand that their input will be recorded for the purpose of preparing a meeting summary, which will highlight discussion points and document recommendations for consideration by the project team and CMS. If a participant discloses private, personal data by his or her own choice, then that material and those communications are not deemed to be covered by patient-provider confidentiality. Patient and family/caregiver participants may request to keep their names confidential in public reports related to the TEP.

**Estimated Number and Frequency of Meetings:**

- ◆ TEP members are expected to serve from November 2016 through November 2017.
- ◆ Members are expected to convene in person for the initial 1-day TEP meeting in Tampa, Florida, on November 17, 2016.
- ◆ Three to four virtual conferences of 1 to 2 hours may also be scheduled through webinar and teleconference capability during the 1-year term of service. Dates for the Web conference meetings will be determined based on need and member availability.

**Date Approved by TEP:**

November 17, 2016

## Technical Expert Panel Charter

### MDP TEP Membership:

*\*Designations of Consumer Perspective are limited to those who selected this as their primary perspective.*

Name, Credentials, Professional Role	Organizational Affiliation, City, State	Consumer Perspective*	Clinical Content	Performance Measurement	Coding and Informatics	Conflict of Interest Disclosure
Peter Aran, MD, Medical Director, Population Health Management	Blue Cross Blue Shield of Oklahoma, Tulsa, OK		X	X		None
Eileen Barrett, MD, MPH, FACP, Assistant Professor of Medicine	University of New Mexico School of Medicine, Albuquerque, NM		X	X		None
Michael Brown, DO, Assistant Chief Medical Informatics Officer Family Physician	Mosaic Life Care Heartland Regional Medical Center, St. Joseph, MO		X	X	X	None
Diana Cardona, MD, FCAP, Associate Professor of Pathology; Chief, Bone & Soft Tissue Pathology Section; Medical Director of Histology and Immunopathology Laboratories	Duke University Medical Center, Durham, NC		X	X		None
Rebecca Etz, PhD, Associate Professor, Department of Family Medicine and Population Health	Virginia Commonwealth University School of Medicine, Richmond, VA		X	X		Consultant analyzing surveys for ABFM for 3 years (10% to 20% of salary, ending December 2016) and American Board of Ophthalmology (outstanding contract, \$2,500); previously funded by ABFM Foundation for national survey; applying to AHRQ for research on primary care measures. "I do not believe this activity will bias my participation in the TEP; I believe it informs my expert position."

Name, Credentials, Professional Role	Organizational Affiliation, City, State	Consumer Perspective*	Clinical Content	Performance Measurement	Coding and Informatics	Conflict of Interest Disclosure
Matthew Fitzgerald, DrPH, Senior Director; Executive Director, Physician Quality Measure Management Contract Public Board Director	Signature Consulting Group Inc., Windsor Mills, MD  American Board of Ophthalmology, Bala Cynwyd, PA		X	X	X	None
Lisa Gall, DNP, RN, FNP, LHIT-HP, Clinical Program Manager  Family Nurse Practitioner (part-time)	Stratis Health Bloomington, MN CentraCare Health (rural hospital/urgent care center)		X	X	X	None
Stephanie Glier, MPH, Senior Manager, Consumer-Purchaser Alliance	Pacific Business Group on Health, San Francisco, CA	X		X	X	None
Jerry Halverson, MD, Medical Director	Rogers Memorial Hospital, Oconomowoc, WI		X	X	X	Participated in PCPI® Major Depressive Disorder measure development work group; was asked to participate in mental health measures advisory group; received no royalties.
Ernest Hymel, MD, PhD, MBA, Chief of Oncology Services  Managing Partner/Practicing Radiation Oncologist	Baptist Hospital of Southeast Texas  Golden Triangle Radiation Oncology, PLLC Beaumont, TX		X	X		None
Jesse James, MD, MBA, Chief Medical Information Officer (TEP Co-Chair)	Evolent Health, Arlington, VA		X	X	X	None

Name, Credentials, Professional Role	Organizational Affiliation, City, State	Consumer Perspective*	Clinical Content	Performance Measurement	Coding and Informatics	Conflict of Interest Disclosure
Warren Jones, MD, FAAFP, Director of Quality and Health Disparities	Provider Resources, Inc., Erie, PA	X	X	X	X	None
Jean Kutner, MD, MSPH, FAAHPM, FACP, Chief Medical Officer Associate Dean for Clinical Affairs	University of Colorado Hospital University of Colorado School of Medicine, Aurora, CO		X	X		Co-investigator on AHRQ R18 “Implementing Best Practice in Palliative Care” [R18HS022763 (Johnson)]
Amy Mullins, MD, CPE, FAAFP, Medical Director, Quality Improvement	American Academy of Family Physicians (AAFP), Leawood, KS		X	X		None
Amy Nguyen Howell, MD, MBA, FAAFP, Chief Medical Officer	CAPG, Los Angeles, CA		X	X		None
Todd Pickard, MMSc, PA-C, Director of Physician Assistant Practice, Office of Vice President of Medical Affairs	University of Texas MD Anderson Cancer Center, Houston, TX		X	X		None
Daniel Roth, MD, Interim Senior Vice President, Clinical Integration Chief Operating Officer	Trinity Health  Trinity Health Partners, Livonia, MI		X	X	X	None
David Seidenwurm, MD, Medical Director, System Radiology Quality and Safety (TEP Co-Chair)	Sutter Medical Group, Sacramento, CA		X	X		Expert witness fees – liability & personal injury cases; ACR MRI accreditation fees – site review; RASMG (medical group) shareholder/ director; Sutter Medical Group shareholder

Name, Credentials, Professional Role	Organizational Affiliation, City, State	Consumer Perspective*	Clinical Content	Performance Measurement	Coding and Informatics	Conflict of Interest Disclosure
Adolph Yates, Jr., MD, Associate Professor	University of Pittsburgh Medical Center, Pittsburgh, PA		X	X		Surgical committee for National Quality Forum; chair of Evidence-Based Medicine Committee for American Association of Hip and Knee Surgeons
Stacy Zimmerman, MD, FACP, FAAP, Internal Medicine Associate Program Director and Clinical Leader of Patient-Centered Medical Home Activities	Unity Health, Searcy, AR		X	X		None
Peggy Zuckerman, MEd Patient and Advocate	SmartPatients, LLC, Mountain View, CA	X				None
Caregiver (Name withheld upon request)	West Hartford, CT	X				None



Centers for Medicare & Medicaid Services (CMS)  
Quality Measure Development Plan (MDP)



## Technical Expert Panel (TEP) Meeting November 17, 2016, from 8:30 a.m. to 4:00 p.m. (ET)

### Meeting Objectives

- Provide an update on establishment of the Quality Payment Program (QPP), guided by the CMS Quality Strategy, as a step toward health care delivery system reform.
- Discuss the role of the TEP in terms of project background and objectives; ratify the TEP Charter.
- Consider the perspectives shared by patient and caregiver TEP members.
- Review the methodology and findings of the Environmental Scan.
- Reaffirm priorities among measure subtopics rated by the TEP.
- Recommend criteria for evaluating the impact of the Measure Development Plan.

### Agenda

**Welcome and Opening Remarks..... 8:30 a.m.–8:35 a.m.**

*Kyle Campbell, PharmD, HSAG*

**CMS Welcome and Update..... 8:35 a.m.–9:00 a.m.**

*Noni Bodkin, PhD, RN, CMS*

**CMS Updates and New Directions – Maria Durham, MBA, MS, CMS**

**Quality Payment Program – Kate Goodrich, MD, MHS, CMS**

**MACRA and Your Role in the**

**CMS Quality Measure Development Plan ..... 9:00 a.m.–9:10 a.m.**

*Mike Sacca, HSAG*

**TEP Introductions and Ratification of TEP Charter ..... 9:10 a.m.–9:40 a.m.**

*Jesse James, MD, MBA, Evolent Health*

*David Seidenwurm, MD, FACR, Sutter Medical Group/Sutter Health*

*(TEP Co-Chairs)*

**Patient and Caregiver Perspectives ..... 9:40 a.m.–10:00 a.m.**

*Caregiver (name withheld upon request)*

*Peggy Zuckerman, MSED*

**Networking Break #1 ..... 10:00 a.m.–10:15 a.m.**

**Overview of the Environmental Scan..... 10:15 a.m.–10:45 a.m.**

*Kendra Hanley, MS, HSAG*

**Review of the Pre-Assessment Approach..... 10:45 a.m.–11:00 a.m.**

*Kyle Campbell, PharmD, HSAG*



## Technical Expert Panel (TEP) Meeting November 17, 2016, from 8:30 a.m. to 4:00 p.m. (ET)

**Discussion of Priority Subtopics by Specialty ..... 11:00 a.m.–12:15 p.m.**

*Kyle Campbell, PharmD, HSAG, and Mary Fermazin, MD, MPA, HSAG*

- General Medicine/Crosscutting
- Mental Health/Substance Use Conditions

**Networking Lunch ..... 12:15 p.m.–1:00 p.m.**

**Discussion of Priority Subtopics by Specialty (continued) ..... 1:00 p.m.–3:00 p.m.**

*Mike Sacca, HSAG; Ann Clancy, MBA, RN, HSAG; Kendra Hanley, MS, HSAG; Mary Fermazin, MD, MPA, HSAG;*

- Palliative Care
- Oncology
- Pathology
- Radiology
- Orthopedic Surgery

**Networking Break #2 ..... 3:00 p.m.–3:15 p.m.**

**Frame work for Evaluating Impact of the MDP ..... 3:15 p.m.–3:50 p.m.**

*Kyle Campbell, PharmD, HSAG, and Ann Clancy, MBA, RN, HSAG*

**Concluding Remarks and Next Steps ..... 3:50 p.m.–4:00 p.m.**

*Kyle Campbell, PharmD, HSAG*

## Appendix III – Environmental Scan and Gap Analysis Report

### Executive Summary

The following Executive Summary is excerpted from the CMS Quality Measure Development Plans *Environmental Scan and Gap Analysis Report* (MACRA, section 102).

#### Introduction

The Centers for Medicare & Medicaid Services (CMS) has contracted with Health Services Advisory Group, Inc. (HSAG) to develop and update the *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*.<sup>1</sup> The contract requires HSAG to conduct an environmental scan and a gap analysis to assess the landscape of current clinician quality measures based on initial priority areas identified in Section V of the CMS Measure Development Plan (MDP).<sup>1</sup> This report describes the process used to conduct the scan and gap analysis and the results of the gap analysis, which were presented to the CMS Measure Development Plan Technical Expert Panel (MDP TEP) in November 2016.

#### Background

The Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA)<sup>2</sup> provides a unique opportunity to transform the health care delivery system from a volume-based payment system to one focused on quality and value. MACRA will change how physicians and other clinicians are paid for their services by establishing the Merit-based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (APMs), together known as the Quality Payment Program.<sup>3</sup> The Quality Payment Program aims to improve health outcomes, promote smarter spending, minimize burden of participation, and provide fairness and transparency in operations. These aims are centered on improving beneficiary outcomes and engaging patients through patient-centered policies, and enhancing clinician experience through flexible and transparent program design and interactions with easy-to-use program tools. The Quality Payment Program replaces CMS legacy programs for clinician quality reporting, including the Physician Quality Reporting System (PQRS), the Value-based Payment Modifier (VM), and the Medicare EHR Incentive Program for Eligible Professionals, to support the transition to value-based care and health care delivery system reform.

MACRA, section 102, requires the Secretary of Health and Human Services to develop and publicly post a Measure Development Plan (MDP) no later than May 1, 2016. CMS posted a draft plan on the CMS.gov website on December 18, 2015, and solicited public comment that subsequently informed the final MDP, posted on May 2, 2016.<sup>1</sup> MACRA, section 102, also requires an annual report that includes an update on the status of newly and previously identified gaps in measures. This environmental scan and gap analysis report serves as the basis for the gaps that will be identified in the MDP Annual Report to be published on the CMS.gov website no later than May 1, 2017.

#### Approach

The team followed an eight-step process that aligns with the CMS Measures Management System Blueprint, v. 12.0,<sup>4</sup> to complete the environmental scan and gap analysis. The steps in the process are as follows:

1. Identify the scope of the environmental scan, according to initial domains, topics, and specialties prioritized in the MDP.
2. Develop the conceptual framework.
3. Identify the quality measure subtopics.
4. Map the measure subtopics to the conceptual framework.
5. Scan existing measures.
6. Classify existing measures by topic/subtopic/specialty.
7. Identify measure gap areas.
8. Present results to the TEP and identify priority measure topics and subtopics.

### **Conceptual Framework**

HSAG developed a conceptual framework to organize the information gathered in the gap analysis, based on six prioritized domains, 11 topics, and seven specialties included in Section V of the MDP.<sup>1</sup> To identify more detailed measure gaps, the team identified subtopics from federal reports, multi-stakeholder groups, public comments on the draft MDP and Quality Payment Program Notice of Proposed Rulemaking (NPRM or Proposed Rule), and the Physician Quality Reporting System (PQRS) preferred measure sets. The team then mapped the resulting 138 subtopics identified to the domains, topics, and specialties included in the conceptual framework, in preparation for the scan of existing measures.

### **Scan of Existing Measures**

The sources scanned for clinician-level quality measures included large, publicly available quality measure databases, the CMS Measures Inventory,<sup>5</sup> CMS public reporting programs, other federal agencies, and other organizations and health care systems. The list of measures included in the Quality Payment Program Proposed Rule,<sup>6</sup> published in the *Federal Register* in May 2016, was also reviewed as a source of measures. Upon the release of the Final Rule<sup>7</sup> on November 4, 2016, the list of measures included in the conceptual framework was reviewed. All measures in the conceptual framework were finalized for inclusion in the program; therefore, no changes to the conceptual framework were necessary following the publication of the final rule.

Measures developed at the clinician level of analysis and for which measure information was readily accessible were included in the scan. In total, 989 measures were scanned, 604 of which were relevant to individual clinician quality measurement. Of the 604 measures, 159 measures were applicable to the topics, subtopics, and specialties included in the conceptual framework. These 159 measures were mapped to the subtopics included in the conceptual framework to show gaps in clinician measures.

### **Gap Analysis**

The 159 measures identified through the environmental scan were mapped to a single topic/subtopic/specialty combination in the conceptual framework. The mapping of the measures to the conceptual framework highlighted measurement gaps in high-priority areas to be considered for future measure development. Sixty-three percent (88/138) of the subtopics/specialty combinations did not have any measures identified through the scan. Table ES1 summarizes the results of the gap analysis for the 11 priority topics.

**Table ES1: Summary of Key Gap Areas by Priority Domain, Topic, and Specialty Area**

CMS Quality Domain/ MACRA Domain	Topic	Gap Analysis Results by Specialty
Effective Treatment/ Clinical Care	1. Outcomes	<p>Orthopedic surgery and oncology: no measures related to outcomes.</p> <p>General medicine/crosscutting: 17 intermediate outcome measures. Crosscutting subtopics of care goal achievement and multiple chronic/complex conditions: no measures.</p>
	2. Patient-reported outcome performance measures (PRO-PMs) [related to clinical care]	<p>Palliative care and oncology: no patient-reported outcome measures.</p> <p>Any of the specialties: no care goal achievement PRO-PMs.</p> <p>General medicine/crosscutting: 1 health-related quality of life measure.</p> <p>Palliative care and oncology: no functional status measures.</p>
Patient Safety/ Safety	3. Diagnostic accuracy	Radiology: 1 measure.
	4. Medication safety	<p>Mental health/substance use conditions and general medicine/crosscutting area: 6 measures of medication side effects.</p> <p>General medicine/crosscutting area: 5 medication management/reconciliation measures; mental health/substance use: no medication management/reconciliation measures.</p> <p>Oncology, orthopedic surgery, palliative care, and radiology: no measures.</p>
Communication and Coordination/ Care Coordination	5. Assessing team-based care	Mental health/substance use, orthopedic surgery, palliative care, and radiology: no team-based care measures; oncology and pathology: 1 each.
	6. Effective use of new technology	<p>Mental health/substance use, oncology, orthopedic surgery, palliative care, and pathology: no measures.</p> <p>General medicine/crosscutting: 2 measures related to telehealth.</p> <p>Radiology: 2 specialty-specific measures.</p>
Person and Family Engagement/ Patient and Caregiver Experience	7. Personal preference and shared decision-making	Mental health/substance use conditions, oncology, and radiology: no measures of personal preference or shared decision-making.
	8. Patient-reported outcome performance measures (PRO-PMs) [related to patient experience]	Oncology and palliative care: no patient/caregiver experience measures.
Healthy Living/Population Health and Prevention	9. Population-level outcomes	<p>General medicine/crosscutting: measures for 3 of 12 subtopics.</p> <p>Mental health/substance use: measures for 2 of 6 subtopics.</p>
	10. Detection/prevention of chronic disease	<p>Mental health/substance use conditions: 2 measures.</p> <p>General medicine/crosscutting: 26 measures, which may also be applicable to mental health/substance use.</p>
Affordable Care	11. Overuse measures	<p>Orthopedic surgery, palliative care, pathology, and mental health/substance use: no measures of overuse.</p> <p>Radiology, oncology, and general medicine/crosscutting: 10 overuse measures that were in the 2016 Quality Payment Program Proposed Rule.</p>

## **Conclusion**

The results of the environmental scan and gap analysis confirm the initial priorities and gaps, outlined in the MDP, as areas for future measure development. After the 159 relevant measures were mapped to the conceptual framework, measure gaps were identified across all quality domains and specialties in the conceptual framework with 63% (88/138) of subtopics lacking associated existing measures. These 88 subtopics represent exciting opportunities for new areas of measure development to support measures for use in the Quality Payment Program.

Of the 159 existing measures identified in the scan, 67 measures are included in the 2016 Final Rule and address some of the prioritized gaps identified in the MDP. The remaining 92 measures could be considered in future program years to address additional priority gaps. Related to the specialties, 100 of the 159 measures are applicable to general medicine but also apply to more than one specialty and are thus “crosscutting” measures that address prioritized measure topics, such as PRO-PMs or medication safety. The crosscutting measures represent opportunities for measure alignment across specialties.

The completion of the environmental scan and the gap analysis serves as important foundational work to prioritize future measure development through identification of specific gaps. Other CMS efforts include evaluating whether existing quality measures used in other health care settings could be adapted or adopted for clinician use. In the future, in accordance with MACRA, section 102, the team will produce an annual report that reflects MDP TEP input and describes progress in addressing gaps in measures for use in the Quality Payment Program. CMS will continue to gather expert input from stakeholders, evaluate the landscape of quality measures, and further evolve the person-centered, value-based quality measure portfolio that CMS envisions to support the transition to health care delivery system reform.

## References

1. Centers for Medicare & Medicaid Services, Health Services Advisory Group. *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*. Baltimore, MD: US Department of Health and Human Services; 2016.  
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2. Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10 §101(c). 129 Stat. 87, (2015).
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5. Centers for Medicare & Medicaid Services. *CMS Measures Inventory*. Baltimore, MD: Centers for Medicare & Medicaid Services; 2016.  
<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/CMS-Measures-Inventory.html>. Accessed December 28, 2016.
6. Centers for Medicare & Medicaid Services. Medicare Program; Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive Under the Physician Fee Schedule, and Criteria for Physician-Focused Payment Models. Proposed rule. *Fed Regist.* 2016;81(89):28161-28686.
7. Centers for Medicare & Medicaid Services. Medicare Program; Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive Under the Physician Fee Schedule, and Criteria for Physician-Focused Payment Models. Final rule with comment period. *Fed Regist.* 2016;81(214):77008-77831.

## Appendix IV – Environmental Scan and Gap Analysis Report Conceptual Framework

Table ES2: Conceptual Framework With Counts of Existing Measures by CMS Quality Domain, Topic, and Specialty<sup>vi,vii</sup>

CMS Quality Domain/ MACRA Domain	Topic	Specialty						
		General Medicine/ Crosscutting	Mental Health/ Substance Use Conditions	Oncology	Orthopedic Surgery	Palliative Care	Pathology	Radiology
Effective Treatment/ Clinical Care	Outcomes	- Care goal achievement (0)  - Intermediate outcomes (e.g., HbA1c, BP) (17; 6 of 17 in QPP NPRM)  - Medication adherence and persistence (4)  - Multiple chronic/complex conditions (0)	- Medication adherence and persistence (5; 1 of 5 in QPP NPRM) - Mortality (1) - Multiple chronic/complex conditions (1) - Recovery-oriented outcomes (1) - Suicide (2)	- Care goal achievement (0) - Disease-free survival for X years (0) - Five-year cure rate (0) - Outcomes for medical, surgical, radiation treatment (0) - Pain control (0) - Specific cancer survival rates (0) - Stage-specific survival rates (0)	- Adverse events surrounding surgery (post-operative cellulitis, pneumonia, etc.) (0) - Complications from procedures (0) - ED visits post-surgery (0) - Length of stay (0) - Return to surgery (0)	- Comfort at end of life (1) - Maintaining dignity and independence (0) - Symptom management (0)	No subtopics identified	No subtopics identified
	PRO-PMs	- Care goal achievement (0) - Functional status (3) - Health-related QOL (1) - Patient activation/engagement (1)	- Care goal achievement (0) - Functional status (4; 2 of 4 in QPP NPRM) - Health-related QOL (0) - Patient activation/engagement (0)	- Care goal achievement (0) - Functional status pre/post treatment (0) - Health-related QOL (0) - Patient activation/engagement (0)	- Care goal achievement (0) - Functional status pre/post orthopedic treatment/joint specific (9; 7 of 9 in QPP NPRM) - Health-related QOL (0) - Patient activation/engagement (0)	- Care goal achievement (0) - Functional status (0) - Health-related QOL (0)	No subtopics identified	No subtopics identified
Patient Safety/ Safety	Diagnostic Accuracy	- Diagnostic accuracy (0)	- Diagnostic accuracy (0)	- Diagnostic accuracy (0)	- Diagnostic accuracy (0)	No subtopics identified	- Diagnostic accuracy (0) - Timely diagnosis (0)	- Cancer detection (0) - Diagnostic accuracy (1)

<sup>vi</sup> **Key:** Measure subtopics highlighted in gray = measures identified that were proposed for Quality Payment Program; cells shaded in blue indicate a given topic is not applicable to that specialty.

<sup>vii</sup> <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>

CMS Quality Domain/ MACRA Domain	Topic	Specialty						
		General Medicine/ Crosscutting	Mental Health/ Substance Use Conditions	Oncology	Orthopedic Surgery	Palliative Care	Pathology	Radiology
	Medication Safety	<ul style="list-style-type: none"> <li>- Adverse drug events (anticoagulants) (1)</li> <li>- Adverse drug events (diabetic agents) (0)</li> <li>- Antibiotic stewardship (4)</li> <li>- Inappropriate medication use (4; 1 of 4 in QPP NPRM)</li> <li>- Medication management/reconciliation (5; 2 of 5 in QPP NPRM)</li> <li>- Medication side effects (1)</li> <li>- Opioids (2; 1 of 2 in QPP NPRM)</li> </ul>	<ul style="list-style-type: none"> <li>- Medication management/reconciliation (0)</li> <li>- Medication side effects (5)</li> <li>- Opioids (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Medication side effects (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Medication side effects (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Medication side effects (0)</li> </ul>	No subtopics identified	<ul style="list-style-type: none"> <li>- Contrast-related adverse events (0)</li> </ul>
Communication and Coordination/ Care Coordination	Assessing Team-Based Care	<ul style="list-style-type: none"> <li>- Bidirectional sharing of information (0)</li> <li>- Communication between patient and provider (6)</li> <li>- Communication between providers (2)</li> <li>- Physical-mental health integration (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Physical-mental health integration (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Team-based care (1)</li> </ul>	<ul style="list-style-type: none"> <li>- Surgical care continuum (preoperative, perioperative, intraoperative, postoperative, and post-discharge) (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Team-based care (0)</li> <li>- Team-based care plan (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Communication between pathologists and clinicians regarding final results reports (1)</li> <li>- Correlation of findings (0)</li> <li>- Timely and directed patient treatment decision-support and care coordination efforts (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Communication between radiologists and clinicians regarding final results reports (0)</li> <li>- Correlation of findings (0)</li> </ul>
	Effective Use of New Technology	<ul style="list-style-type: none"> <li>- Interoperability to enhance communication (1)</li> <li>- Telehealth (2)</li> </ul>	<ul style="list-style-type: none"> <li>- Telehealth (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Telehealth (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Telehealth (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Telehealth (0)</li> </ul>	<ul style="list-style-type: none"> <li>- Telehealth (0)</li> </ul>	<ul style="list-style-type: none"> <li>- DICOM image availability (2)</li> <li>- Telehealth (0)</li> </ul>

CMS Quality Domain/ MACRA Domain	Topic	Specialty						
		General Medicine/ Crosscutting	Mental Health/ Substance Use Conditions	Oncology	Orthopedic Surgery	Palliative Care	Pathology	Radiology
Person and Family Engagement/ Patient and Caregiver Experience	Personal Preference and Shared Decision-Making	- Ability for care self-management (0) - Fidelity to care plan and attainment of goals (0) - Information provided at appropriate times - Patient understanding (0) - Treatment options and/or care goal presented to determine patient preferences (2)	- Treatment options and/or care goal presented to determine patient preferences (0)	- Hospice and end of life metrics for medical oncology (0) - Treatment options and/or care goal presented to determine patient preferences (0)	- Treatment options and/or care goal presented to determine patient preferences (1)	- Hospice and end of life preferences (2; 1 of 2 in QPP NPRM)	No subtopics identified	- Diagnostic options consistent with patient preferences (0)
	PRO-PMs	- Patient/ caregiver experience (1)	- Patient/caregiver experience (4)	- Patient/caregiver experience (0)	- Patient/caregiver experience (1)	- Patient/caregiver experience (0)	No subtopics identified	No subtopics identified
Healthy Living/ Population Health and Prevention	Population-Level Outcomes	- Alcohol/substance use (4) - Community engagement (0) - Criminal justice (0) - Employment (0) - Healthy communities (0) - Housing (1) - Life expectancy (0) - Overweight and obesity (0) - Preventive services (0) - Tobacco use (5) - Unintended pregnancy (0) - Well-being (0)	- Alcohol/substance use (0) - Criminal justice (0) - Employment (0) - Housing (2) - Suicide (1) - Tobacco use (0)	No subtopics identified	No subtopics identified	No subtopics identified	No subtopics identified	No subtopics identified
	Detection/ Prevention of Chronic Disease	- Alcohol/substance use (1) - Immunizations (6; 2 of 6 in QPP NPRM) - Screening measures (16; 9 of 16 in QPP NPRM) - Tobacco use (3; 1 of 3 in QPP NPRM)	- Alcohol/substance use (1) - Screening measures (1) - Tobacco use (0)	No subtopics identified	No subtopics identified	No subtopics identified	No subtopics identified	No subtopics identified

CMS Quality Domain/ MACRA Domain	Topic	Specialty						
		General Medicine/ Crosscutting	Mental Health/ Substance Use Conditions	Oncology	Orthopedic Surgery	Palliative Care	Pathology	Radiology
Affordable Care	Overuse Measures	- Appropriate use (7; 6 of 7 in QPP NPRM)	- Appropriate use (0)	- Appropriate use (3; 2 of 3 in QPP NPRM) - ER Utilization (1) - Inpatient hospital admission rate (1)	- Appropriate use (0)	- Appropriate use (0)	- Appropriate use (0)	- Appropriate use (7; 6 of 7 in QPP NPRM)

## Appendix V – TEP Pre-Assessment Ratings of Measure Subtopics

Bolded rows indicate subtopics selected for TEP discussion at the November 17 meeting.

**Table 1: General Medicine/Crosscutting Pre-Assessment Ranking**

General Medicine/Crosscutting			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
<b>1</b>	<b>Outcomes: Multiple chronic/complex conditions</b>	<b>8.0</b>	<b>1.8</b>
<b>2</b>	<b>Personal preference and shared decision-making: Patient understanding</b>	<b>8.0</b>	<b>1.9</b>
<b>3</b>	<b>Diagnostic accuracy: Diagnostic accuracy</b>	<b>8.0</b>	<b>2.0</b>
4	Assessing team-based care: Bidirectional sharing of information	8.0	2.1
5	Outcomes: Care goal achievement	8.0	2.3
6	Medication safety: Adverse drug events (diabetic agents)	7.5	1.7
7	Personal preference and shared decision-making: Ability for care self-management	7.0	1.7
8	Population level outcomes: Preventive services	7.0	1.8
9	Population level outcomes: Overweight and obesity	7.0	1.8
10	Assessing team-based care: Physical-mental health integration	7.0	1.9
11	Population level outcomes: Well-being	7.0	2.3
12	Patient-reported (clinical) outcome: Care goal achievement	7.0	2.4
13	Personal preference and shared decision-making: Fidelity to care plan and attainment of goals	6.5	1.7
14	Personal preference and shared decision-making: Information provided at appropriate times	6.0	2.3
15	Population level outcomes: Unintended pregnancy	5.5	1.8
16	Population level outcomes: Healthy communities	5.0	1.8
17	Population level outcomes: Life expectancy	5.0	2.0
18	Population level outcomes: Employment	5.0	2.4
19	Population level outcomes: Criminal justice	5.0	2.7
20	Population level outcomes: Community engagement	4.5	2.5

**Table 2: Mental Health/Substance Use Conditions Pre-Assessment Ranking**

Mental Health/Substance Use Conditions			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
<b>1</b>	<b>Medication safety: Opioids</b>	<b>9.0</b>	<b>1.7</b>
<b>2</b>	<b>Medication safety: Medication management/reconciliation</b>	<b>8.0</b>	<b>1.9</b>
3	Assessing team-based care: Physical-mental health integration	8.0	1.9
4	Patient-reported (clinical) outcome: Health-related quality of life	8.0	2.1
5	Patient-reported (clinical) outcome: Patient activation/engagement	8.0	2.3
6	Personal preference and shared decision-making: Treatment options and/or care goal presented to determine patient preferences	7.5	2.0
7	Population level outcomes: Tobacco use	7.5	2.5
8	Population level outcomes: Alcohol/substance use	7.0	2.2

Mental Health/Substance Use Conditions			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
9	Detection/prevention of chronic disease: Tobacco use	7.0	2.3
10	Diagnostic accuracy: Diagnostic accuracy	7.0	2.3
11	Effective use of new technology: Telehealth	7.0	2.4
12	Patient-reported (clinical) outcome: Care goal achievement	7.0	2.4
13	Overuse measures: Appropriate use	7.0	2.5
14	Population level outcomes: Employment	7.0	2.7
15	Population level outcomes: Criminal justice	6.0	2.7

**Table 3: Oncology Pre-Assessment Ranking**

Oncology			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
1	Outcomes: Pain control	9.0	1.6
2	Personal preference and shared decision-making: Hospice and end-of-life metrics for medical oncology	9.0	1.6
3	Diagnostic accuracy: Diagnostic accuracy	8.5	1.5
4	Personal preference and shared decision-making: Treatment options and/or care goal presented to determine patient preferences	8.5	1.9
<b>5</b>	<b>Outcomes: Stage-specific survival rates</b>	<b>8.0</b>	<b>1.8</b>
<b>6</b>	<b>Patient-reported (clinical) outcome measures: Functional status pre-/ post-treatment</b>	<b>8.0</b>	<b>1.8</b>
7	Patient-reported (clinical) outcome measures: Health-related quality of life	8.0	2.0
8	Patient-reported (clinical) outcome measures: Care goal achievement	8.0	2.0
9	Patient-reported (clinical) outcome measures: Patient activation/engagement	8.0	2.2
10	Patient-reported (experience) outcome measures: Patient/caregiver experience	7.5	2.2
11	Medication safety: Medication side effects	7.0	1.8
12	Outcomes: Outcomes for medical, surgical, radiation treatment	7.0	1.9
13	Outcomes: Specific cancer survival rates	7.0	1.9
14	Outcomes: Five-year cure rate	7.0	2.1
15	Outcomes: Care goal achievement	7.0	2.2
16	Outcomes: Disease-free survival for X years	7.0	2.5
17	Effective use of new technology: Telehealth	5.0	2.7

**Table 4: Orthopedic Surgery Pre-Assessment Ranking**

<b>Orthopedic Surgery</b>			
<b>Rank</b>	<b>Measure Topic: Subtopic</b>	<b>Median</b>	<b>Standard Deviation</b>
1	<b>Outcomes: Return to surgery</b>	<b>8.0</b>	<b>1.4</b>
2	<b>Assessing team-based care: Surgical care continuum (preoperative, perioperative, intraoperative, postoperative, and post-discharge)</b>	<b>8.0</b>	<b>1.5</b>
3	Outcomes: Complications from procedures	8.0	1.6
4	Patient-reported (clinical) outcome measures: Health-related quality of life	8.0	1.7
5	Outcomes: Adverse events surrounding surgery (Post-operative cellulitis, pneumonia, etc.)	8.0	1.8
6	Patient-reported (clinical) outcome measures: Care goal achievement	8.0	1.9
7	Overuse measures: Appropriate use	8.0	2.0
8	Diagnostic accuracy: Diagnostic accuracy	8.0	2.3
9	Outcomes: Emergency department visits post-surgery	7.0	1.6
10	Patient-reported (clinical) outcome measures: Patient activation/engagement	7.0	1.8
11	Medication safety: Medication side effects	7.0	2.0
12	Outcomes: Length of stay	6.0	1.6
13	Effective use of new technology: Telehealth	5.0	2.7

**Table 5: Palliative Care Pre-Assessment Ranking**

<b>Palliative Care</b>			
<b>Rank</b>	<b>Measure Topic: Subtopic</b>	<b>Median</b>	<b>Standard Deviation</b>
1	<b>Outcomes: Symptom management</b>	<b>9.0</b>	<b>0.7</b>
2	<b>Outcomes: Maintaining dignity and independence</b>	<b>8.0</b>	<b>1.6</b>
3	Patient-reported (experience) outcome measures: Patient/caregiver experience	8.0	1.9
4	Patient-reported (clinical) outcome measures: Care goal achievement	8.0	2.1
5	Assessing team-based care: Team-based care	7.5	1.7
6	Overuse measures: Appropriate use	7.5	2.4
7	Patient-reported (clinical) outcome measures: Health-related quality of life	7.0	1.8
8	Assessing team-based care: Team-based care plan	7.0	2.1
9	Medication safety: Medication side effects	7.0	2.2
10	Patient-reported (clinical) outcome measures: Functional status	7.0	2.2
11	Effective use of new technology: Telehealth	5.0	2.5

**Table 6: Pathology Pre-Assessment Ranking**

Pathology			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
1	Diagnostic accuracy: Diagnostic accuracy	9.0	1.3
2	Diagnostic accuracy: Timely diagnosis	8.5	1.3
3	<b>Assessing team-based care: Correlation of findings</b>	<b>7.5</b>	<b>2.1</b>
4	<b>Assessing team-based care: Timely and directed patient treatment decision support and care coordination efforts</b>	<b>7.0</b>	<b>2.0</b>
5	Overuse measures: Appropriate use	5.0	2.7
6	Effective use of new technology: Telehealth	5.0	3.0

**Table 7: Radiology Pre-Assessment Ranking**

Radiology			
Rank	Measure Topic: Subtopic	Median	Standard Deviation
1	Diagnostic accuracy: Cancer detection	9.0	1.5
2	<b>Assessing team-based care: Communication between radiologists and clinicians regarding final results reports</b>	<b>9.0</b>	<b>1.8</b>
3	<b>Assessing team-based care: Correlation of findings</b>	<b>7.0</b>	<b>1.7</b>
4	Medication Safety: Contrast-related adverse events	7.0	2.1
5	Effective use of new technology: Telehealth	7.0	2.1
6	Personal preference and shared decision-making: Diagnostic options consistent with patient preferences	7.0	2.3

## Appendix VI – Vision Statements for the Quality Payment Program Measure Portfolio

These “vision statements” were presented to the CMS Measure Development Plan (MDP) Technical Expert Panel in October 2016 to rate as potential evaluation criteria for progress toward fulfillment of the strategic plan for measure development. The statements are cited below as excerpted from Section II of the MDP, CMS Strategic Vision – Measure Development Priorities.<sup>viii</sup>

### Measure Integration to Support MIPS and APMs

Through integration of the strategic vision for the MDP into the measure development process, the CMS measure portfolio will evolve to consist of measures that address the goals and aims of the CMS Quality Strategy and the quality domains of clinical care, safety, care coordination, patient and caregiver experience, population health and prevention, and affordable care. Selected measures from PQRS, VM, and the Medicare EHR Incentive Program will be the starting point for measures to be used in MIPS. To address gaps in that set, MACRA funding will enable the development of new measures that may be used in MIPS and eligible APMs. The resulting portfolio will reflect CMS priorities and include measures that:

- Follow the patient trajectory across the continuum of care for populations with one or more chronic conditions (e.g., team-based care across the surgical care continuum).
- Emphasize the therapeutic relationship between the clinician, patient, and family caregiver while recognizing personal and family choice and individual goals for treatment.
- Support improved integration of physical and behavioral health for individuals with substance use and mental health conditions associated with increased risk of other chronic disease.
- Emphasize outcomes, including PROMs and measures of functional status; and global outcome and population-based measures, balanced with process measures that are proximal to and strongly tied to outcomes.
- Address patient experience, care coordination, and appropriate use (e.g., overuse and underuse).
- Promote multiple levels of accountability (e.g., individual clinicians, group practices, system-level, population-level).
- Include clinically relevant measures for all specialties/subspecialties, and all MIPS eligible professionals that do not currently have clinically relevant measures.
- Apply to multiple clinicians, including clinical specialists, non-physicians, and non-patient facing professionals.
- Are adopted from other health care settings and are applicable to physicians and other professionals.

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<sup>viii</sup> Centers for Medicare & Medicaid Services. *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs)*. Baltimore, MD: Centers for Medicare & Medicaid Services; 2016; pp. 21–22. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs.html>.

- Use data generated from EHRs and claims data, based as much as possible on existing workflows during the routine provision of clinical care.
- Incorporate broader use of additional clinical and sociodemographic data (e.g., qualified clinical data registries).
- Produce measures that are stratified by age, sex,<sup>x</sup> race, ethnicity, and other available demographic variables to enable clinicians to identify and eliminate disparities among vulnerable populations.
- Are suitable for public reporting on the CMS Physician Compare website.<sup>x</sup>
- Account for the variation and diversity of payment models.
- Align with other models and reporting—including with Medicaid, other federal partners and the private sector—and are specified for multi-payer applicability.
- Are appropriate for low-volume clinicians (e.g., rural providers, small and independently owned physician practices).

Incorporating the voices of patients and consumers throughout the measure development process will ensure that the measures are useful to support MIPS and APMs and are meaningful to consumers.

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<sup>x</sup> CMS recognizes that biological sex and gender are both important variables that may affect outcomes. Current data include biological sex. When gender data become available, they may be incorporated for measures that distinguish between sex and gender, such as outcomes associated with issues of gender identity.

<sup>x</sup> Section 1848(q)(9)(A)(i)