CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR CLINICAL STANDARDS & QUALITY

CMS Quality Measure Development Plan

2020 Annual Report

For the Quality Payment Program

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Executive Summary

The U.S. Department of Health and Human Services (HHS) and the Centers for Medicare & Medicaid Services (CMS) must report annually on the progress CMS is making in developing measures for the Quality Payment Program and implementing the *CMS Quality Measure Development Plan: Supporting the Transition to the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs),*[i,1] also known as the Measure Development Plan or MDP. This 2020 MDP Annual Report fulfills that statutory requirement.

Building upon the methods of the 2017, 2018, and 2019 MDP Annual Reports,[2-4] CMS tracked the progress of federal efforts to implement important aspects of section 102 of the Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA). To assemble the required elements, CMS prepared a summary of measure development activities, calculated measure development costs for fiscal year (FY) 2019, and compiled an inventory of applicable quality measures available for 2020 reporting. A review of the 2020 inventory assessed progress in addressing gaps for clinician specialties underrepresented in the Quality Payment Program measure portfolio. Input from the technical expert panel (TEP) convened by the contractor to support the MDP project and analyses of measurement gaps provided additional information to guide measure development and selection. The above activities illustrate how CMS is integrating the patient voice, clinician perspectives, and the input of other stakeholders into measure development for the Quality Payment Program.

Key Findings

Funding New Measure Development

- CMS is expending a total of $26.6 million over three years through MACRA cooperative agreements, which currently fund 32 quality measures in development.[5] Seven recipients received a total of $9.2 million in FY 2018 and $8.5 million in FY 2019 to support measure development in the prioritized specialties of orthopedic surgery, pathology, radiology, palliative care, oncology, and mental health and substance use.[6]

Identifying and Developing Meaningful Measures

The Quality Payment Program assembled a portfolio of clinician measures that reduces burden, increases alignment, and reflects patient and stakeholder engagement as CMS:

- Finalized 218 quality measures for MIPS reporting in 2020, including 147 high-priority measures representing each of the MACRA quality domains.
- Advanced efforts to move toward digital quality measurement for which information comes from fully electronic and interoperable systems.
- Added seven specialty-specific measure sets for a total of 46 available for 2020 reporting.
- Funded development on 58 quality measures distributed across five Health Care Quality Priority/MACRA domains,[ii] completing five measures.
- Approved 63 qualified clinical data registries (QCDRs), including 33 registries applicable to the 12 specialties prioritized in the MDP or MDP Annual Reports.

[i] Section 1848(s)(3) of the Social Security Act (the Act), as added by section 102 of the Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA).

[ii] Some funding for measure development activities was obligated prior to the passage of MACRA from sources other than section 1848(s)(6) of the Social Security Act (the Act).

- Conducted a MIPS measure portfolio review that resulted in removal of 42 measures not aligned with the Meaningful Measures framework.
- Placed six potential MIPS quality measures on the 2019 CMS Measures under Consideration List,[7] of which one is applicable to orthopedic surgery and two are applicable to general medicine/crosscutting.
- Received support or conditional support for rulemaking from the Measure Applications Partnership (MAP) convened by the National Quality Forum (NQF) for two of those three measures for prioritized specialties.

Partnering With Patients, Families, and Caregivers in Measure Development

- Patients, families, and caregivers collaborated in multi-stakeholder technical expert panels (TEPs), interviews, and workshops.
- CMS assigned a contractor to recruit and prepare such individuals for quality measure-related TEPs, working groups, and focus groups.

Partnering With Clinicians and Professional Societies

- Surveys and focus groups obtained feedback from clinicians and support staff about their participation in the Quality Payment Program. Respondents described their experiences in finding and reporting measures and the investments required to participate.

Reducing Clinician Burden of Data Collection for Quality Measure Reporting

- CMS collaborated with stakeholders to design MIPS Value Pathways (MVPs) for future implementation through rulemaking. MVPs will align MIPS performance categories to simplify clinician reporting, reduce burden, and improve the value of health care.[8(p. 62946)]
- CMS achieved a 22% reduction in MIPS quality measures since the transition from the Physician Quality Reporting System (PQRS) in 2015, affirming its commitment to retain and implement only high-value measures for clinician reporting.

Alignment of Measures

- CMS joined with America's Health Insurance Plans (AHIP) and the National Quality Forum (NQF) to increase alignment of measures across health care settings through the Core Quality Measures Collaborative (CQMC). The CQMC began developing an implementation guide in 2019 to increase use of core measure sets.
- CMS value-based programs for hospitals and clinicians initiated a broad analysis of their measures to identify areas to align measure concepts.
- A whiteboarding session, webinars, virtual office hours, Tech Talks, and one-on-one calls facilitated collaboration with QCDRs to strengthen the standards of QCDR measures and support harmonization across entities.

Additional HHS Efforts to Support the MDP

- The transition to Clinical Quality Language (CQL) expression logic and the introduction of the Fast Healthcare Interoperability Resources (FHIR) exchange network for health care information marked critical advances in standards for electronic clinical quality measures (eCQMs).

Combined FY 2019 expenditures for measure development applicable to the Quality Payment Program were estimated at $11.7 million. Areas of focus covered three MACRA domains specified in section 1848(s)(1)(B) of the Act, which align with the Health Care Quality Priorities that CMS has established with input from stakeholders (Table 1).

Table 1: Summary of CMS-Funded Measures Developed or in Development for the Quality Payment Program in FY 2019[iii]

Health Care Quality Priority (MACRA Domain)*	# Developed or in Development in FY 2019	# of eCQMs
Make Care Affordable (Affordable Care)	0	N/A
Promote Effective Communication and Coordination of Care (Communication and Coordination)/Care Coordination	12	9
Promote Effective Prevention and Treatment of Chronic Disease (Effective Treatment)/Clinical Care	17	5
Work With Communities to Promote Best Practices of Healthy Living (Healthy Living)/ Population Health and Prevention	0	N/A
Make Care Safer by Reducing Harm Caused in the Delivery of Care (Patient Safety)/ Safety	9	4
Strengthen Person and Family Engagement as Partners in Their Care (Person and Family Engagement)/Patient and Caregiver Experience	20	10
Total	58	28

* CMS Health Care Quality Priorities align with the MACRA domains specified in section 1848(s)(1)(B) of the Act—care coordination, clinical care, population health and prevention, safety, and patient and caregiver experience—but also include affordable care. Tables in this report use the shortened titles indicated in parentheses.

CMS-funded measure development in FY 2019 yielded substantial progress toward narrowing gap areas for targeted specialties and meeting other priorities identified in prior MDP Annual Reports. The five measures that completed development are applicable to general medicine/ crosscutting, mental health/substance abuse, and orthopedic surgery. Among the 52 measures still in development[iv]:

- 32 measures funded through MACRA cooperative agreements are applicable to the specialties of mental health/substance use (12), oncology (four), orthopedic surgery (six) palliative care (two), pathology (seven), and radiology (one). Nineteen of the 32 measures directly address gaps identified in the 2017 *MDP Environmental Scan and Gap Analysis Report*.[9]
- 17 other measures address clinical specialties prioritized by the MDP; four of those directly address measurement gaps identified in the 2017 or 2018 *MDP Environmental Scan and Gap Analysis Report*.[9,10]
- Three measures are patient-reported outcome performance measures (PRO-PMs) or outcome measures in high-priority areas such as opioid use disorder and safety.

An environmental scan and gap analysis planned in 2020 will examine gaps in population health measures, a key component of the MIPS Value Pathways foundation. That report will highlight opportunities to adapt concepts to clinician-level measurement and develop new, high-value measures that reflect what is most important to patients, thus supporting a transition to the future state of MIPS.

[iii] As of September 30, 2019, to allow for estimated funding for the entire FY 2019 and for federal review and clearance prior to publication of this report.
[iv] The count excludes one measure on which development was halted.

I. Introduction

CMS developed the Measure Development Plan[1] four years ago to guide measure development for the Quality Payment Program. Initial work focused on establishing the infrastructure to identify and address measurement gaps in the Quality Payment Program. This 2020 MDP Annual Report demonstrates how those foundational activities, combined with recent CMS-funded measure development, have narrowed prioritized measurement gaps in the Quality Payment Program and advanced primary objectives of the MDP to increase measure alignment, promote transparency through stakeholder engagement in CMS measure development activities, and reduce clinician burden.

During Fiscal Year (FY) 2019:

- Seven recipients of MACRA cooperative agreements completed their second year of participation in this public-private initiative, which provides financial grants and technical assistance to organizations developing measures, all focused on clinical specialties prioritized in the MDP.[v]
- CMS continued to prioritize high-value measures that are meaningful to patients and relevant to clinicians by reducing the number of topped out or low-bar MIPS measures, achieving a reduction of 22% since 2015.
- Strategies to increase patient engagement and align measures became accepted measure development practices, while CMS intensified efforts to reduce the burden of measure reporting.
- Outreach to measure developers, clinicians, and other stakeholders underscored the importance of keeping the patient at the center of all CMS quality initiatives.

Objectives

The 2020 MDP Annual Report, developed in accordance with section 102 of MACRA,[vi] highlights the latest efforts by the Secretary of HHS to support the evolution of the MDP as a strategic framework for measure development for the Quality Payment Program.

Together with the MDP, this report informs and guides CMS and measure developers on progress and priorities for measure development while fulfilling the following requirements of section 102 of MACRA[vii]:

- **Reports on the progress made in developing quality measures for the Quality Payment Program[viii] and the Secretary's efforts to implement the MDP.**[ix] These efforts include funding new measure development and developing the Quality Measure Index (QMI) to objectively assess measure quality. CMS partners with patients, clinicians, and professional societies in measure development and specifically notes the contributions of the TEP

[v] Specialties prioritized in the MDP include general medicine/crosscutting, mental health and substance use conditions, oncology, orthopedic surgery, palliative care, pathology, and radiology.
[vi] Section 1848(s)(3) of the Act.
[vii] Excerpts of the authorizing legislation for this report appear in *MACRA Statutory Language Excerpts* (Appendix A).
[viii] Section 1848(s)(3)(A) of the Act.
[ix] Section 1848(s)(3)(B)(i) of the Act.

supporting both the MDP and QMI projects in *Acknowledgments* (Appendix B), which contains a 2019–2021 membership list.

- **Provides other information the Secretary determines to be appropriate.**[x] Efforts across HHS with input from external stakeholders include reducing reporting burden for eligible clinicians through rules establishing MIPS Value Pathways (MVPs) to align reporting requirements and performance categories. HHS also has upgraded standards, educational resources, and collaborative tools to advance the technical infrastructure needed for seamless reporting of eCQMs.
- **Details updates to the MDP, including newly identified gaps and the status of previously identified gaps (***Previously Identified Gaps Addressed in 2019 Measures Under Consideration List* [Appendix C]).[xi] Measures applicable to prioritized specialties were finalized for inclusion in the Quality Payment Program, and a population health-focused environmental scan and gap analysis to inform the design of MVPs was planned, focused on measure alignment across payers, settings, and levels of measurement.
- **Describes the quality measures developed during the previous year[xii] (FY 2019, October 1, 2018–September 30, 2019)** (*CMS-Funded Measures Developed During the Previous Year* **[**Appendix D]**)**. Measure information provided includes name, Health Care Quality Priority(ies); developer, steward, type, and whether electronically specified. The total number of quality measures developed, endorsement status, and an estimate of the total amount expended to develop all measures of a particular type are also provided.
- **Describes quality measures in development at the time of the report (as of September 30, 2019)**[xiii] (*CMS-Funded Measures in Development* [Appendix E]). In addition to the same details described for fully developed measures, a timeline for completion is included if available.
- **Provides an inventory of applicable measures.**[xiv] Relevant information is compiled on quality measures for MIPS, including MIPS APM measures; measures for Advanced APMs (*CMS Advanced APM Quality Measures Inventory* [Appendix F]); and measures reportable through MIPS qualified clinical data registries (QCDRs) for 2020.

While CMS anticipates updating the MDP as appropriate, each new MDP Annual Report supports the existing plan by reflecting current information about measure inventories and gaps, measure development, and approaches to meet statutory requirements.

[x] Section 1848(s)(3)(B)(v) of the Act.
[xi] Section 1848(s)(3)(B)(iv) of the Act.
[xii] Section 1848(s)(3)(B)(ii) of the Act.
[xiii] Section 1848(s)(3)(B)(iii) of the Act.
[xiv] Section 1848(s)(3)(B)(iv) of the Act.

Report Development

Section 102 of MACRA authorizes $15 million each fiscal year from 2015 through 2019, available through the end of FY 2022, for measure development and supporting activities advancing the strategic plan set forth in the MDP. As required by section 102 of MACRA, the 2020 MDP Annual Report provides an estimate of expenditures, which totaled $14.5 million for FY 2019:

- $8.5 million for measure development under MACRA cooperative agreements
- $2.3 million[xv] for other measure development funded by section 102 of MACRA
- $1.1 million for technical support to MACRA cooperative agreement recipients
- $2.6 million[xvi] to support activities related to the MDP (e.g., development of the MDP Annual Report, advancing the priorities identified in the MDP) and to provide a strong foundation for measure development opportunities funded by MACRA (e.g., Measures Management System outreach and education related to MACRA).

As described in the 2017, 2018, and 2019 MDP Annual Reports,[2-4] CMS and its stakeholder partners carried out foundational work for measure developers to begin addressing identified measurement gaps. This MDP Annual Report provides evidence that gaps for specialties identified through the MDP environmental scan and gap analysis reports are beginning to close, as measures included in the CY 2020 Physician Fee Schedule addressed some of those gap areas (e.g., general medicine/crosscutting and orthopedic surgery).[8(p. 63207-63211)] Measures in development and projected for completion in FYs 2020–2022 are expected to address gaps for other specialties.

An inventory was compiled of measures developed and in development, and the inventory was compared with previously identified gaps. The 2019 CMS Measures Under Consideration List[7] was reviewed to assess progress in addressing gaps for clinical specialties underrepresented in the Quality Payment Program measure portfolio. That examination included the specialties prioritized in the MDP (general medicine/crosscutting, mental health/substance use conditions, oncology, orthopedic surgery, palliative care, pathology, and radiology) and in the 2018 MDP Annual Report (allergy/immunology, emergency medicine, neurology, physical medicine and rehabilitation, and rheumatology).

This Annual Report describes CMS efforts to develop an objective and repeatable method to assess measures using criteria that are transparent to stakeholders and developers. External stakeholders serving on the TEP—clinicians, quality and measurement experts, and patient and caregiver representatives—provided valuable insights to support the development and testing of the Quality Measure Index. To supplement their expertise, targeted outreach in the fall of 2019 recruited individuals skilled in measure development methodology and implementation of quality measures in electronic health records (EHRs) and QCDRs for the TEP.

[xv] This amount represents obligated funds for FY 2019, not all of which have been expended for certain measures in development.
[xvi] This amount represents obligated funds for FY 2019 and not actual dollars spent.

II. MACRA Requirements for the CMS MDP Annual Report

Efforts to Implement the MDP

The Measure Development Plan (MDP) guides the development of quality measures for the two tracks of the Quality Payment Program: MIPS and Advanced APMs. The MDP outlines key considerations for MIPS and Advanced APMs, including partnering with patients, families, caregivers, and clinicians; identifying and developing meaningful measures; alignment of measures; and reducing clinician reporting burden. CMS is committed to supporting patients, families, clinicians, professional societies, and measure developers through the implementation of the MDP's strategic approaches, as exemplified by the following activities.

Funding New Measure Development

Seven cooperative agreements totaling $26.6 million over three years have been awarded to develop, improve, update, or expand quality measures for the Quality Payment Program with funds authorized under MACRA.[5,11] The cooperative agreements established an innovative partnership between CMS and private organizations. Recipients received a combined $9.2 million in FY 2018 and $8.5 million in FY 2019[6] for measure development for the prioritized specialties of orthopedic surgery, pathology, radiology, palliative care, oncology, and mental health and substance use. With guidance provided through the MACRA 102 Cooperative Agreement Technical Assistance (CATA) Task Order, each cooperative agreement recipient is expected to produce one or more fully developed, specified, and tested quality measure for potential use in the Quality Payment Program.

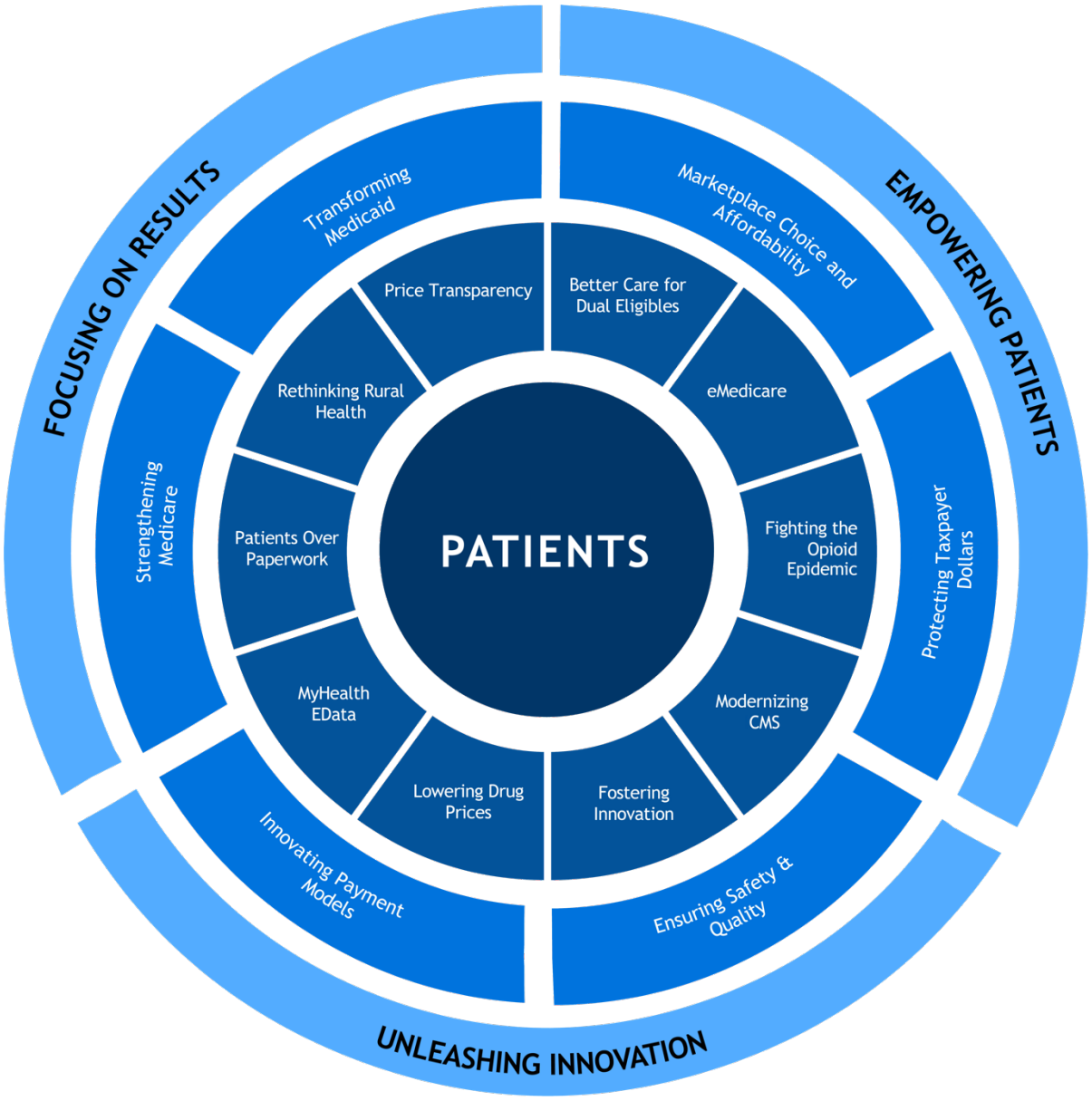
Identifying and Developing Meaningful Measures

CMS Strategic Priorities

The CMS Strategic Priorities diagram (Figure 1) illustrates the shared goal to put patients first in programs including Medicare, Medicaid, and the Health Insurance Exchanges. Principles of innovation, results, and empowerment encompass 16 overarching goals and priorities to guide all programs in supporting and enhancing the patient experience. Initiatives to foster innovation and modernize CMS programs will provide patients with access to advanced medical technologies and encourage electronic innovation and communication across the health care system.

The Ensuring Safety & Quality strategic initiative captures the majority of CMS quality measure work focused on patient health outcomes. CMS aims to provide patients with meaningful quality and cost data to inform health care decisions while minimizing administrative burden to allow clinicians to spend more time with their patients.

Figure 1. CMS Strategic Priorities



Meaningful Measures Initiative

Closely aligned with the Strategic Priorities is the Meaningful Measures Initiative, which guides CMS quality measure work to improve patient outcomes and reduce clinician burden by prioritizing and promoting high-value quality measures. The framework is currently organized by six Health Care Priorities containing 19 Meaningful Measure Areas that represent core issues vital to high-quality care. The framework centers on overarching goals to improve the customer experience, support flexibility and innovative approaches, and empower patient and doctors.[12]

The Meaningful Measures framework is intended to be responsive to the needs and priorities of stakeholders. As CMS continues to modernize value-based programs and reduce burden, the framework will be refined to reflect top priorities (e.g., patient safety, seamless communication,

appropriate use of opioids) and key measure gaps in clinician-level reporting. The Meaningful Measure Areas will incorporate the domains of population health, patient-reported outcomes, and cost as CMS strives to enhance patient and consumer engagement through responsiveness and transparency.

In 2019, CMS officials explored measure alignment opportunities and challenges associated with Meaningful Measure Areas. They used the Meaningful Measurement and Improvement Affinity Group to champion the initiative and to facilitate the use and implementation of the Meaningful Measures framework throughout CMS.

Another facet of the framework is innovation—in payment models as well as in access to meaningful health care information. Advancements in electronic infrastructure, such as increased options for digital quality data submission and adoption of interoperable electronic registries, are paramount to support harmonization across measures and provide timely and actionable feedback to clinicians. CMS is therefore increasing reliance on *digital quality measures*—those that originate from electronic sources of health information transmitted via interoperable systems.[xvii] CMS's commitment to digital measurement will continue to drive digital data submission, interoperable electronic registries, and timely, actionable feedback to providers.

Quality Measure Index

Gap analyses of clinician quality measures are conducted as a precursor to measure development. Previous MACRA gap analyses, while informative, were intended to focus on the existence of measures specific to a priority area or topic rather than the relative value of those measures. The Quality Measure Index (QMI) is currently being developed to assess the relative value of quality measures based on key measure characteristics.

CMS initiated the development of the QMI, guided by feedback from the TEP, to provide a standardized and repeatable method to assess measures using criteria that are transparent to stakeholders and developers. The QMI is intended to support and enhance the assessment and decision-making processes used by CMS for measure selection, implementation, and continued use in CMS quality reporting programs.

CMS and its contractor have completed the following steps of development for the QMI:

- Identified key measure characteristics through an environmental scan and literature review.
- Defined those characteristics as either classification variables (used to stratify measures) or scoring variables (used to assess measures).
- Tested the feasibility of the variables and availability of data using fully developed clinician-level measures implemented in the 2018 Quality Payment Program.
- Collected sufficient data from public sources to calculate preliminary QMI scores.
- Used a larger random sample of 100 fully developed clinician-level measures included in the 2018 Quality Payment Program to:
    - Assess the feasibility, reliability, and validity of 12 QMI scoring variables.
    - Determine the variation in performance and the validity of the QMI.
    - Consider options for weighting the index.

[xvii] Examples of electronic sources include EHRs, health information exchanges (HIEs), clinical registries, case management systems, electronic administrative claims systems, electronically submitted assessment data, and wearable devices.

Further testing yielded preliminary QMI scores; found 10 scoring variables to be reliable, valid, and feasible for data collection; and confirmed the QMI as a valid tool to assess quality measures.

The tool is designed to allow refinement to incorporate additional scoring variables. The next step in development is to ensure the index can be used on measures at various phases of the Measure Lifecyle, including measure conceptualization, specification, testing, and implementation. QMI testing in 2020 will focus on measures in those initial four phases of development.

Partnering with Patients, Families, and Caregivers

Capturing the patient and family voice within measure development is an agency-wide priority to ensure that quality measures are relevant and meaningful to the health care beneficiaries whom CMS serves. Patients and families are essential to include in the measure development process, as they provide invaluable perspectives on their health care experiences, health outcomes, and overall goals of care. In 2019, patients, families, and caregivers found many opportunities to become involved in measure development through contractor-convened TEPs, focus groups, interviews, and workshops for projects such as these:

- Behavioral Health Measures: Development, Reevaluation, & Maintenance
- Hospice Tool Assessment Development
- Patient-Reported Outcome-based Depression Performance Measure for Use in Primary Care Practices
- Patient Safety Measure Development and Maintenance

In support of these efforts, CMS awarded a Person and Family Engagement for Quality Measure Development contract, spanning 2019–2024, to recruit and maintain a network of persons and families for measure-related TEPs, working groups, and focus groups.[13,14]

The CMS *Person and Family Engagement (PFE) Toolkit: A Guide for Measure Developers*[15] became publicly available in FY 2019, providing instructive content and staff trainings on how to meaningfully engage with patient and family partners.

A CMS measure development contractor conducted empathy interviewing—a technique of human-centered design—to inform the conceptualization of a pain management measure for patients receiving opioids. Interviews of a diverse group of patients were conducted to gain a deeper understanding of their experiences, needs, and priorities related to pain management. The contractor validated and expanded upon the findings with a second sample of patients in two subsequent design workshops. The efforts yielded an evidence-based list of measure concepts—identified by patients and prioritized by clinicians—for CMS to pursue for further development.

Partnering with Clinicians and Professional Societies

Quality Payment Program Educational Resources

The Quality Payment Program Resource Library[16] is a primary source of support for eligible clinicians. The library includes an overview of the Quality Payment Program and regulatory updates in the forms of fact sheets, summaries, specialty guides, and technical and user guides. Resources such as timelines and eligibility determination periods for the active performance year are posted for both MIPS and APM reporting tracks. Support for small, underserved, and rural practices and a database of all Quality Payment Program-related webinars are also available.

Medicare Learning Network

The Medicare Learning Network© (MLN) informs health care providers about updates and policy changes affecting CMS programs. Within the network, clinicians and health care providers can access live and recorded calls and webcasts, continuing education courses, and a repository of MLN Connects© and MLN Matters© newsletters. The MLN Learning Management System© offers web-based training courses related to the Quality Payment Program, for which participants can earn continuing education credits.

MLN Connects posts weekly updates and announcements targeting a broad audience of stakeholders. MLN Matters, aimed at health care professionals billing for services provided to Medicare beneficiaries, addressed changes in the CY 2019 Physician Fee Schedule final rule.

Measures Management System (MMS) and Outreach

In September 2019, the Measures Management System released Version 15.0 of the *Blueprint for the CMS Measures Management System*,[17] the primary CMS resource prescribing standardized processes and best practices for CMS measure developers. Notable updates to Version 15.0 include the addition of a chapter on Tools and Resources in Measure Development, expanded updates to risk adjustment guidance, and an appendix of information for qualified clinical data registries and qualified registries.

A CMS contractor produced the monthly MMS newsletter to inform all stakeholders interested in measure development activities and opportunities for engagement.[18] The reach of the newsletter expanded to 85,000 subscribers in 2019, a 13% increase from the previous calendar year. The MMS newsletter publishes announcements of report releases and technical developments, overviews of measure types and clinical practice guidelines, and a calendar of events such as Calls for Measures, updates on TEPs, and public comment periods. A separate newsletter targeted more than 1,000 subscribers specifically interested in MACRA measure development, including specialty societies, patient advocacy groups, and other measure developers.

The CMS MMS Measure Development Education & Outreach webinar series presented topics germane to the Quality Payment Program, such as resources and tips for successful measure development, CMS measure priorities, and the pre-rulemaking process.[19] Examples of 2019 presentations are the following:

- Best Practices for Environmental Scanning
- CMS 2019 Program Measure Needs and Priorities
- Getting Involved in Quality Measure Development: A Practical Guide for Engaging Patients, Providers, and Advocates
- Measure Evaluation and the National Impact Assessment of the CMS Quality Measures
- Why Measures Fail NQF Endorsement

Development of Episode-Based Cost Measures for MIPS

A third wave[xviii] of clinical subcommittees in 2019 sought detailed clinical input on specifications for the five episode groups approved for development: asthma/chronic obstructive pulmonary disease, diabetes, colon resection, melanoma resection, and sepsis. Workgroup

[xviii] Wave 3 corresponds to activities performed in 2019.

members provided input on episode group scope and trigger codes, approaches for ensuring meaningful clinical comparisons, and categories of services to assign to the episode group. A Call for TEP nominations began in November 2019 to continue development focused on chronic disease episodes under the Physician Cost Measures and Patient Relationship Codes contract. The TEP for the episode-based cost measures will meet annually through 2024 to advise the measure developer on issues including prioritization of episodes for development and the composition of clinical subcommittees supporting measure development. The *2020 MIPS: Summary of Cost Measures* report details the activities and Medicare costs of episode-based cost measures developed under this project.[20] The Wave 1[xix] and Wave 2[xx] measures currently cover 6.3% of Medicare Part A and B expenditures.[20]

Understanding the Clinician Perspective

CMS incorporates the clinician perspective into measure development through measure-specific workgroups, technical expert panels, and clinician committees. In 2019, a CMS measure contractor sought to learn from the experiences of clinicians and their support staff who report quality measures in the Quality Payment Program. Surveys and focus groups gathered feedback on the key aspects of their experiences, including the availability of measures applicable to the clinician practice, feasibility of reporting, and workflow changes and investments needed to comply with required reporting activities. Insights gained will inform the development of measures for the Quality Payment Program.

Reducing Clinician Burden of Data Collection for Quality Measure Reporting

MIPS Value Pathways

MIPS began in 2017 as one of two Quality Payment Program tracks to assess Medicare clinicians on value and outcomes. As participation grew to 98% of MIPS eligible clinicians in 2018, many reported that too much choice in measure selection confused them. To reduce the reporting burden for eligible clinicians, CMS removed measures from MIPS that were low-bar standard of care measures or that did not align with the priorities of the Meaningful Measures framework. Additional feedback from clinicians indicated that alignment and streamlining of quality measures and making them applicable across MIPS performance categories would improve the program.

In response, CMS proposed and finalized MIPS Value Pathways (MVPs), a participation framework to reduce burden, simplify reporting, and improve the value of health care for patients and families.[8(p. 62946)] The goal of MIPS MVPs is to channel siloed quality activities into unified efforts to create an aligned set of measures relevant to a clinician's scope of practice.[21] The CY 2020 Physician Fee Schedule proposed rule envisioned "a hybrid approach … where clinicians are measured on a unified set of measures and activities around a clinician condition or specialty, layered on top of a base of population health measures, which would be included in virtually all of the MVPs."[22(p. 40733)] After conducting broad outreach, CMS finalized its proposal to align sets of measures to ease clinician reporting burden and allow comparisons between clinicians and groups nationwide.[8(p. 62946),22(p. 40742-40744)]

[xix] Wave 1 corresponds to activities performed in 2017.
[xx] Wave 2 corresponds to activities performed in 2018.

CMS will further define MVPs in future rulemaking cycles, co-developing the framework with patients, clinicians, and specialty societies to foster opportunities for stakeholder dialogue and feedback. As MVPs are implemented, eligible clinicians may choose them to fulfill their MIPS reporting requirements. The MVP foundation will expand in future years to include enhanced performance feedback and patient-reported outcomes and increase alignment between quality measures and improvement activities.

Reduction of MIPS Quality Measures

The Meaningful Measures Initiative expressed the intent to remove topped out, duplicate, low-bar quality measures from CMS programs to reduce reporting burden for participating clinicians. Quality measures lacking adequate data to establish a benchmark and show positive impact on quality also were removed. CMS's commitment to implement only high-value measures is evidenced by a net change of 22.4% fewer measures during the transition from the Physician Quality Reporting System (PQRS) to MIPS, from 254 PQRS measures in 2015 to 218 in the CY 2020 MIPS measure inventory (Table 2). To advance high-value measures that reduce reporting burden, the 2020 MIPS Call for Measures will ask measure stewards and developers, if feasible, to link each quality measure submitted to an existing and related cost measure and improvement activity.

Table 2. CMS Clinician Quality Measures by Year for 2015–2020

Final Rule Year	Measures Added	Measures Removed	Total Measures	Net Change
2015 (PQRS)	-	-	254	-
2016 (PQRS)	37	10	281	**+10.6%**
2017 (MIPS)	19	29	271	**– 3.6%**
2018 (MIPS)	8	4	275	**+1.5%**
2019 (MIPS)	8	26	257	**– 6.5%**
2020 (MIPS)	3	42	218	**–15.2%**
Overall				**–22.4%**

Alignment of Quality Measures

To identify areas for measure concept alignment, CMS is analyzing the quality measures used in the following value-based programs: MIPS, Medicare Advantage, Medicaid Adult Core Set, Medicare Shared Savings Program, and the Health Insurance Marketplace. This broad analysis, together with other reported alignment efforts, will result in more harmonized measures for clinicians and hospitals.

Core Quality Measures Collaborative

In late 2018, America's Health Insurance Plans (AHIP), CMS, and the National Quality Forum (NQF) formalized the continuation of the Core Quality Measures Collaborative (CQMC) to improve health care by increasing alignment and consensus of measures among health care payers.[23] In this partnership convened by NQF, CMS and CQMC members (e.g., health insurance issuers, medical associations, consumer groups) will work to enhance existing core sets and expand quality measures in new clinical areas. The multi-stakeholder CQMC has 57 member organizations that collaborate to recommend core sets of measures that can be used by all payers to monitor U.S. health care quality.

CMS uses the CQMC as a forum to discuss how to best align quality measures in the Quality Payment Program, giving precedence to core measure sets that function across federal, state, and private programs. Core measure sets adopted by CMS also are in use by private health plans in annual reporting programs. The current CQMC approach to identifying topics for core sets is by clinical specialty; however, other models under consideration are stakeholder priorities, crosscutting topics, payment model-specific, and setting-specific. The CQMC gathered stakeholder feedback on approaches to prioritizing topic areas for the creation of future measure sets. The draft report, *Approaches to Core Set Prioritization*,[24] was released for public comment in late 2019.

Also in fall 2019, the CQMC solicited nominations for subject matter experts to develop an Implementation Guide for the CQMC core sets. The goal of the guide is to foster buy-in and adoption of core measure sets among health care partners through increased knowledge of the technical aspects of implementation for payment and quality reporting. The multi-stakeholder committee will serve throughout 2020.

Current CQMC core sets include:

- Accountable Care Organizations/Patient Centered Medical Homes/Primary Care
- Cardiology
- Gastroenterology
- HIV & Hepatitis C
- Medical Oncology
- Obstetrics & Gynecology
- Orthopedics
- Pediatrics

Two additional core sets are expected in 2020:

- Neurology
- Behavioral Health

QCDRs and Qualified Registries

QCDRs and qualified registries are CMS-approved vendors that submit quality measure data on a clinician's behalf in the form of either a MIPS quality measure or a QCDR measure approved for use in MIPS within the Quality Payment Program. QCDRs benefit clinicians because they offer specialty-based measures for MIPS eligible clinicians who might otherwise lack applicable measures to report. In 2019, increased options were available for QCDRs and qualified registries to report measures on behalf of clinicians. Measure developers have advocated for greater guidance for QCDRs to support measure quality. In 2019, CMS collaborated with QCDR stakeholders in the following ways:

- A whiteboarding session with QCDR stakeholders to discuss the QCDR measure approval process, harmonization, and issues related to licensing
- Virtual office hours, Tech Talks, and over 40 one-on-one calls with QCDRs to discuss QCDR measure concepts prior to the self-nomination period
- Additional guidance on QCDR measure harmonization requests for QCDR measures
- Informational guides on QCDR measure development for MIPS

- QCDR measure webinars on topics such as appropriate measure development, the need for harmonization, and ways to develop meaningful QCDR measures
- The annual in-person QCDR kick-off meeting in April 2019 to provide guidance on applicable timelines and requirements of the program
- A QCDR Google group containing contact information for QCDRs to collaborate and harmonize
- A 2020 QCDR & Qualified Registry Boot Camp to provide approved QCDRs and qualified registries the anticipated program timeline and a high-level overview of next steps.

Combined, these efforts provided opportunities for meaningful dialogue about QCDR measure concepts and alignment efforts. To strengthen the QCDR standards for MIPS eligible clinicians, CMS adopted several changes[xxi] to QCDR quality measure requirements in the CY 2020 Physician Fee Schedule final rule, including the following examples:

Performance Year 2020:

- QCDRs will provide evidence that an environmental scan of existing QCDR measures, MIPS quality measures, and quality measures retired from PQRS was conducted prior to measure development.[8(p. 63061)]
- QCDRs will use the most recent CMS MDP Annual Report and the MMS Blueprint to identify measurement gaps.[8(p. 63061)]
- Previously approved QCDR measures and new measures self-nominated by QCDRs will be reviewed annually to determine whether they are appropriate for the program.[8(p. 63059)]

Performance Year 2021:

- QCDRs[8(p. 63054-63055)] and qualified registries[8(p. 63074-63076)] must submit data for clinicians under MIPS on quality, improvement activities, and promoting interoperability performance categories.[8(p. 63052-63053)]
- QCDRs are to include information on how performance on a measure compares with that of other clinicians within the qualified registry or QCDR or cohort who have submitted data on that measure.[8(p. 63057-63058)]
- QCDR measures must be fully developed with completed testing results at the clinician level and must be ready for implementation at the time of self-nomination.[8(p. 63065-63067)]
- In considering QCDR measures for approval, CMS prefers outcome-based measures over clinical process measures.[8(p. 63071)] Additional priorities include measures that:
    - Address the domains of care coordination and patient and caregiver experience.
    - Address patient safety and adverse events.
    - Address efficiency, cost, and resource use.
    - Identify appropriate use of diagnosis and therapeutics.

[xxi] For a comprehensive list of changes, see the CY 2020 Physician Fee Schedule Final Rule[8(p. 63054-63076)] or the 2020 Quality Payment Program Final Rule Overview Fact Sheet.[25]

Additional HHS Efforts to Support the MDP

Updated Measures Database

The CMS Measure Inventory Tool (CMIT),[26] updated in 2019, contains over 750 unique measures actively used across 39 CMS quality programs and initiatives, including the Quality Payment Program, and over 2,300 unique measure records of previously used measures or measures under development. A 2019 update allows CMIT users to view the measure status for each program and compare up to three measures side by side. The measure summary functionality has been enhanced. The CMIT is updated three times a year in parallel with federal rule publications, whereas all other program-related measure information is updated at the start of the calendar year.

Additionally, the Environment Scan Support Tool (ESST) was released publicly on the CMIT site in April 2019 to aid measure developers and other stakeholders interested in measures used in CMS programs. The tool lists the top 30 most relevant abstracts and top 30 most relevant full-text articles found in PubMed (2007–present), using artificial intelligence derived from the Measure Information Form. Databases used in the ESST monthly search were expanded from PubMed and Google Scholar to include PsycINFO®.

eCQM Standardization

Standardization of eCQMs progressed substantially among value-based programs through collaboration between the eCQM Strategy Project, federal partners, and outside stakeholder groups. Accomplishments include the introduction of the Fast Healthcare Interoperability Resources (FHIR) exchange network for electronic health care information, the completed transition to Clinical Quality Language (CQL) expression logic within eCQMs, and alignment of eCQM resources across programs, payers, and quality partners.

In 2019, the eCQM Strategy Project participated in the CMS launch of FHIR-based quality reporting program to receive FHIR quality data. FHIR is an open-source, next-generation Health Level Seven International (HL7) standard exchange framework for electronic health care information. The eCQM Strategy Project was an active participant in the Da Vinci Project Data Exchange[27] for Quality Measurement to investigate FHIR-based quality reporting, facilitating three HL7 and Da Vinci Connectathons to test FHIR-based quality use cases.

The CQL Style Guide Version 3.0 was released in May 2019 to reflect the transition to using CQL as the expression logic within eCQMs. The updated CQL Style Guide provides support and best practices for all measure developers and measure stewards of eCQMs. CQL is the HL7 standard designed to unify the expression of logic for eCQMs and clinical decision support. The eCQM Strategy Project launched the Cypress Validation Utility Plus (CVU+) in July 2019 to verify the ability of health information technology systems to report to CMS programs.

Lastly, the eCQM Strategy Project analyzed eCQM resources by CMS quality reporting programs, federal agencies (e.g., Agency for Healthcare Research and Quality, Substance Abuse and Mental Health Services Administration, National Library of Medicine), and quality partners (e.g., NQF, HIMSS) and facilitated discussions regarding long-term measure alignment efforts across reporting programs. Through these collaborations, alignment of website resources (including eCQM terms, eCQM information, and links to the Electronic Clinical Quality Improvement [eCQI] Resource Center) was achieved.

EHR and eCQM Data Quality

NQF convened the EHR Data Quality TEP in November 2019 to explore how EHR data can be combined with eCQMs to promote automated measure reporting.[28] The EHR Data Quality TEP, serving for 15 months, will address EHR data issues and recommend best practices for increasing the scientific acceptability (e.g., validity, reliability) and feasibility of eCQMs. The TEP will meet for at least seven web meetings spanning 2019–2020 and conduct an environmental scan and recommendation report to be released for public comment in 2020.

Measure Collaboration Workspace

The Measure Collaboration Workspace, formerly known as the Collaborative Measure Development Workspace, is part of the CMS eCQI Resource Center that launched the Data Element Repository (DERep) in late 2018. The DERep is intended to reduce burden by centralizing eCQM information from multiple sources (e.g., eCQM specifications, Quality Data Model, and the Value Set Authority Center). The repository has incorporated stakeholder feedback in four subsequent releases since launching, including data definitions for CMS Quality Program eCQMs for the 2019 and 2020 reporting periods. In total, 42 CMS eligible clinician eCQMs were added to help clinicians, quality measurement specialists, EHR vendors, and information technology staff map data required for eCQM reporting across programs.[29]

Four focus groups in 2019 queried providers, implementers, and other stakeholders on features of the Workspace, leading to the development of module prototypes for eCQM Concepts, New eCQM Clinical Workflow, and eCQM Test Results. The planned modules will allow increase transparency and collaboration between measure developers and other stakeholders.

III. Closing Measurement Gaps by Advancing the MDP

The primary approach to identify measurement gaps is through environmental scans and gap analyses focused on clinical specialties or measurement topic areas prioritized by CMS. Environmental scans and gap analyses identify priorities for measure development from key national reports and available literature, assess the landscape of existing clinician quality measures, and identify measurement gaps where measures to address the priorities are lacking. Two such scans in 2017 and 2018 identified gaps in 12 clinical specialties.[9,10] The 2018–2019 MDP TEP identified measurement gaps for crosscutting measures applicable to most, if not all, eligible clinicians. Measures included in the 2019 Measures Under Consideration List address gaps identified through prior MDP efforts. Measure development efforts by recipients of MACRA cooperative agreement awards also focus on specialties prioritized in the MDP.

Status of Measurement Gaps

Identification of New Gaps for Measure Development

CMS anticipates a transition to a future state of MIPS in which the MVPs described in CY 2020 rulemaking are established to align performance categories and reduce clinician reporting burden.[8(p. 62948)] CMS has identified population health as a key aspect of the foundation of measures that will apply broadly to eligible clinicians.

To examine gaps in population health measures, an environmental scan and gap analysis will be conducted in 2020. A report of the findings will identify gaps for potential clinician-level measure development as well as measures specified at other levels of analysis (e.g., facility, accountable care organization [ACO]) that CMS could consider adapting for use in MIPS. The team will seek feedback from the TEP on the appropriateness of the identified gaps for clinician-level measure development.

The *NQF Report on 2018 Activities to Congress and the Secretary of the Department of Health and Human Services*[30] identifies numerous measure gaps related to population health. The planned MDP gap analysis will further explore these topics, which encompass access to care, transitions in care, health literacy, patient-reported outcomes, quality of life, and assessment of environmental factors.

A primary theme evident in stakeholder discussions focused on health care quality measurement is the need to align measures across payers, programs, and levels of analysis. Therefore, CMS seeks to balance the need for clinically appropriate measures for specialists to report with the aim of a limited set of measures applicable to most eligible clinicians. An examination of population health measures at differing levels of analysis (e.g., clinician or facility level) is warranted to foster opportunities to harmonize across programs and payers.

Status of Previously Identified Gaps

Recent measure development efforts demonstrate progress toward addressing the measurement gaps identified in the 2017, 2018, and 2019 MDP Annual Reports.[2-4] Five measures completed development in FY 2019; all address measurement gaps identified in the *2017 MDP Environmental Scan and Gap Analysis Report*[9] and are applicable to prioritized specialties: general medicine/crosscutting (three), mental health/substance use (one), and orthopedic surgery (one).

CMS-funded measure development efforts are in progress for 52 quality measures, 32 of which were funded initially in FY 2018 through MACRA cooperative agreements and are applicable to the prioritized specialties of mental health and substance use (12), oncology (four), orthopedic surgery (six) palliative care (two), pathology (seven), and radiology (one). Nineteen of the 32 measures directly address gaps identified in the *2017 MDP Environmental Scan and Gap Analysis Report*.[9] Of the remaining 20 measures in development, 17 measures address clinical specialties prioritized by the MDP[xxii]; four of those directly address measurement gaps identified in the 2017 or 2018 *MDP Environmental Scan and Gap Analysis Report*.[9,10] The remaining three measures are PRO-PMs or outcome measures in high-priority areas such as safety and prevention of opioid abuse. Additional details about measures that completed development or are in development are provided in Sections IV and V of this report.

Measures Under Consideration List Applicable to Previously Identified Gaps

Each year the Measures Under Consideration List identifies quality and efficiency measures under review by the Secretary of HHS for use in certain Medicare quality programs.[31] The *2019 MDP Annual Report*[3] mentioned eight measures on the 2018 Measures Under Consideration List for MIPS, of which five were applicable to clinical specialties identified in the previous *MDP Annual Reports*[2,4] as having measurement gaps. The CY 2020 Physician Fee Schedule final rule included two of those five measures for MIPS[8(p. 63207-63211)]: *Adult Immunization Status* (general medicine/crosscutting) and *Functional Status Change for Patients with Neck Impairments* (orthopedic surgery and physical medicine and rehabilitation).

Six potential MIPS quality measures were included on the 2019 Measures Under Consideration List.[7] Three were applicable to priority specialties with gaps identified in the *2017* and *2018 MDP Annual Reports*[2,4]: two for general medicine/crosscutting and one for orthopedic surgery.

As part of the pre-rulemaking process, the multi-stakeholder MAP convened by NQF reviewed all three measures applicable to the identified specialties. After evaluation, the MAP supported or conditionally supported for rulemaking[32,xxiii] two of the three measures applicable to the priority specialties, as indicated in Table 3. CMS considers the MAP recommendations when reviewing measures for potential use in programs.

[xxii] Some funding for measure development activities was obligated prior to the passage of MACRA from sources other than section 1848(s)(6) of the Act.
[xxiii] Comprehensive information about the MAP and MAP processes is available at: http://www.qualityforum.org/MAP_Initiates_Review_of_Performance_Measures_for_Federal_Programs.aspx.

Table 3: Summary of 2019 Measures Under Consideration Applicable to Previously Identified Gaps

Health Care Quality Priority/ MACRA Domain*	# of Measures for General Medicine/ Crosscutting	# of Measures for Orthopedic Surgery
Affordable Care	0	0
Communication and Coordination/Care Coordination *Hospital-wide, 30-day, All-cause unplanned readmission (HWR) rate for the Merit-Based Incentive Payment Program (MIPS) eligible clinician groups*[C]	1	0
Effective Treatment/Clinical Care *Clinician and Clinician Group Risk-standardized Hospital Admission Rates for Patients with Multiple Chronic Conditions*[D]	1	0
Healthy Living/Population Health and Prevention**	0	0
Patient Safety/Safety *Risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA) for Merit-Based Incentive Payment System (MIPS) Eligible Clinicians and Eligible Clinician Groups*[S]	0	1
Person and Family Engagement/ Patient and Caregiver Experience	0	0
Total	2	1

* The MACRA domains specified in section 1848(s)(1)(B) of the Act are care coordination, clinical care, population health and prevention, safety, and patient and caregiver experience. CMS Health Care Quality Priorities also include affordable care. Tables in this report use shortened titles for Health Care Quality Priorities, as indicated in parentheses.
** Prevention measures are included in Promote Effective Prevention and Treatment of Chronic Disease.
[C] Conditionally supported for rulemaking by the MAP
[D] MAP Evaluation: Do not support for rulemaking with potential for mitigation
[S] Supported for rulemaking by the MAP

Previously Identified Gaps Addressed in 2019 Measures Under Consideration List (Appendix C) provides additional information about the three measures applicable to prioritized specialties.

Gaps identified through the MDP environmental scans are anticipated to close as measure developers proceed with the sequence of steps required to develop, test, and validate measures prior to submission.

IV. Quality Measures Developed and in Development During the Previous Year

Quality Measures Developed During the Previous Year

This subsection of the report describes five CMS measures intended for inclusion in MIPS, MIPS APMs, or Advanced APMs for which development was completed in FY 2019 (Appendix D). Estimated development expenditures for the four outcome measures ($474,619) and one process measure ($44,687) totaled $519,306 for FY 2019.

Outcome measures:

- Two outcome measures applicable to the MACRA domain of safety were developed by Yale-New Haven Health Services Corporation/Center for Outcomes Research and Evaluation (Yale CORE) and are stewarded by CMS. Each addresses a gap identified in the 2017 *CMS MDP Environmental Scan and Gap Analysis Report*.[9]
    - *Eligible Clinician- or Eligible Clinician Group-Level Risk-Standardized Complication Rate Following Elective Primary Total Hip Arthroplasty and/or Total Knee Arthroplasty*[xxiv,xxv]*:* This NQF-endorsed orthopedic surgery measure was on the 2019 Measures under Consideration List[7] and is relevant to complications of procedures.
    - *Patient Safety Indicator for Hypoglycemia:* This general medicine/crosscutting measure is focused on diabetic complications related to medications.
- Two additional outcome measures[xxvi] developed by Yale CORE and stewarded by CMS were included on the 2019 Measures Under Consideration List.[7] These low-burden, claims-based measures will support the reduction of hospital admissions and fill a gap for crosscutting measures identified in the *2018 CMS MDP Environmental Scan and Gap Analysis Report*.[10] Both were adapted for use at the clinician or clinician group level and will be considered for implementation in MIPS.
    - *Clinician and Clinician Group Risk-Standardized Hospital Admission Rates for Patients with Multiple Chronic Conditions*[xxvii]
    - *Clinician Group Hospital-Wide All-Cause Unplanned Readmission Measure*[xxviii]

Process measure

- Clinical process of care measures must have a strong scientific evidence base to demonstrate a linkage between the process being measured and improved outcomes. This general

[xxiv] Work performed on this measure over the past year included review of final specifications, additional testing, and feedback to support CMS decision-making regarding key components of the measure.
[xxv] Measure title as it appeared on the 2019 Measures under Consideration list: *Risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA) for Merit-based Incentive Payment System (MIPS) Eligible Clinicians and Eligible Clinician Groups*
[xxvi] Work performed on these measures over the past year included review of final specifications, additional testing, and feedback to support CMS decision-making regarding key components of the measures.
[xxvii] Measure title as it appears on the 2019 Measures under Consideration List: *Clinician and Clinician Group Risk-standardized Hospital Admission Rates for Patients with Multiple Chronic Conditions*
[xxviii] Measure title as it appears on the 2019 Measures under Consideration List: *Hospital-Wide, 30-Day, All-Cause Unplanned Readmission (HWR) rate for the Merit-based Incentive Payment Program (MIPS) Eligible Clinician Groups*

medicine/crosscutting measure, developed and stewarded by the University of Southern California, focuses on the prevention of opioid and substance use disorder, a high priority under the MACRA domain of clinical care.

- *Continuity of Pharmacotherapy for Opioid Use Disorder*[xxix] This measure reflects key tenets and principles outlined in the MDP, including alignment with CMS Health Care Quality Priorities and an important opportunity to advance population health[1] by addressing the opioid epidemic.

See *CMS-Funded Measures Developed During the Previous Year* (Appendix D) for details of these measures.[xxx]

Quality Measures in Development at the Time of This Report[xxxi]

This subsection of the report describes measures CMS intends for inclusion in MIPS, MIPS APMs, or Advanced APMs that were in development during FY 2019 (but not yet completed) at an estimated combined cost of $11.16 million.[xxxii]

Table 4 lists the 53 measures in development within each Health Care Quality Priority/MACRA quality domain and notes whether the measures were electronically specified. See *CMS-Funded Measures in Development* (Appendix E) for additional details[xxxiii] about these measures, including timelines for completion and a crosswalk of measure names revised since the *2019 MDP Annual Report.*[3]

Table 4: Summary of CMS-Funded Measures in Development[xxxiv] in FY 2019

Health Care Quality Priority/MACRA Domain* - *Measure Name* (Steward/Developer[s])	# of Measures	# of eCQMs
Affordable Care	0	N/A
Communication and Coordination/Care Coordination - *Care Coordination after Asthma-Related Emergency Department Visit* Σ (CMS/Mathematica) - *Care Coordination after Asthma-Related Emergency Department Visit: EP Follow-up* Σ (CMS/Mathematica) - *Heart Failure Admission Measure* (CMS/Yale CORE) - *Notification to the Provider Requesting Amylase Tests* Σ (American Society for Clinical Pathology) - *Notification to the provider requesting myoglobin or CK-MB* Σ (American Society for Clinical Pathology) - *Notification to the provider requesting thyroid screening tests* Σ American Society for Clinical Pathology) - *Rate of communicating results of an amended report with a major discrepancy to the responsible provider* Σ (American Society for Clinical Pathology)	10	9

[xxix] Endorsed at the health plan level; level of analysis and data source have been expanded.
[xxx] Section 1848(s)(3)(B)(ii) of the Act.
[xxxi] As of September 30, 2019, to allow for estimated funding for the entire FY 2019 and for federal review and clearance prior to publication of this report.
[xxxii] This amount includes $9.1 million from section 102 of MACRA ($8.5 million for cooperative agreements and $607,000 for other MACRA-funded measure development) and $2.1 million in funding from other title XVIII sources not specific to MACRA.
[xxxiii] Section 1848(s)(3)(B)(iii) of the Act.
[xxxiv] As of September 30, 2019, to allow for estimated funding for the entire FY 2019 and for federal review and clearance prior to publication of this report.

Health Care Quality Priority/MACRA Domain* - *Measure Name* (Steward/Developer[s])	# of Measures	# of eCQMs
- *Rate of Notification of a New Diagnosis of Malignancy to the Responsible Provider* Σ (American Society for Clinical Pathology) - *Time Interval: Critical Value Reporting for Chemistry* Σ (American Society for Clinical Pathology) - *Time Interval: Critical Value Reporting for Troponin* Σ (American Society for Clinical Pathology)		
Effective Treatment/Clinical Care** - *Annual Wellness Assessment: Preventive Care (Composite)* Σ (CMS/NCQA) - *Cognitive Impairment (CI) Assessment Among Older Adults (75 Years and Older)* Σ (CMS/Mathematica) - *Evidence-based treatment (EBT): First Episode Psychosis Initiation & Adherence to treatment* (American Psychiatric Association) - *Evidence-based treatment (EBT): Initiation & adherence to medication-assisted treatment (MAT) for patients with opioid use disorder (OUD)* (American Psychiatric Association) - *Evidence-based treatment (EBT): Initiation, Review and Update to Suicide Safety Plan* (American Psychiatric Association) - *High-dose opioid prescribing practices after hospital discharge following total hip (THA) or total knee arthroplasty (TKA) in previously opioid naive patients* Σ (Brigham and Women's Hospital) - *Measurement-based care (MBC): Initial standardized assessment for all patients seen for mental health and/or substance use care* (American Psychiatric Association) - *Measurement-based care (MBC): Monitoring of symptoms, functioning, and recovery for all patients seen for mental health and substance use care* (American Psychiatric Association) - *Measurement-based care (MBC): Treatment or care plan adjustment for all patients seen for mental health and/or substance use care* (American Psychiatric Association) - *Measurement-based care (MBC): Recovery for all patients seen for mental health and substance use care* (American Psychiatric Association) - *Measurement-based care (MBC): Stabilization or Reduction in Functional Impairment for all patients seen for mental health and substance use care* (American Psychiatric Association) - *Measurement-based care (MBC): Stabilization or Reduction in Psychotic symptoms for patients with first-episode psychosis (FEP)* (American Psychiatric Association) - *Measurement-based care (MBC): Stabilization or Reduction in Suicide symptoms* (American Psychiatric Association) - *Measurement-based care (MBC): Stabilization or Reduction in symptoms for patients with opioid Use Disorder (OUD)* (American Psychiatric Association) - *Opioid extended use rate following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)*Σ (Brigham and Women's Hospital) - *Quality of Life Assessment for Patients Who Receive Substance Use Disorder Treatment* Σ (CMS/Mathematica)	16	5
Healthy Living/Population Health and Prevention	0	N/A
Patient Safety/Safety - *Adverse Drug Events for Patients Taking Anticoagulant Medications in an Ambulatory Setting* Σ (CMS/Mathematica) - *Excessive Radiation Dose or Inadequate Image Quality for Diagnostic Computed Tomography (CT) in Adults* (The Regents of the University of California San Francisco) - *Opioid Safety Measure* (CMS/UM-KECC) - *Opioids: Risk-standardized opioid-related respiratory depression rate following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)* Σ (Brigham and Women's Hospital) - *Practitioner-Level Long-Term Catheter Rate* Ω (CMS/UM-KECC) - *Risk-Standardized Bleeding-Related Adverse Drug Event Rate for Patients Taking Anticoagulant Medications Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA)* Σ (Brigham and Women's Hospital)	7	4

Health Care Quality Priority/MACRA Domain* - *Measure Name* (Steward/Developer[s])	# of Measures	# of eCQMs
- *Risk-Standardized Complication Rate (RSCR) Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA)* Σ (Brigham and Women's Hospital)		
Person and Family Engagement/Patient and Caregiver Experience - *CAHPS Measure Modification for CPC+ Practices* (CMS/RTI) - *Care Goal Achievement Following Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA)* (Brigham and Women's Hospital) - *Changes in Patient Reported Outcomes (PROs) Following Non-Emergent Percutaneous Coronary Intervention (PCI)* Σ (CMS/Mathematica) - *Consumer Rating of Care Experience* (American Psychiatric Association) - *Disease Activity Assessments and Target Setting in Patients with Rheumatoid Arthritis* Σ (CMS/Mathematica) - *Documentation of a Health Care Partner for Patients with Dementia or Mild Cognitive Impairment* Σ (CMS/Mathematica) - *Functional Status Assessment and Target Setting for Patients with Congestive Heart Failure* Σ (CMS/Mathematica) - *Functional Status Assessments and Target Setting for Patients with Asthma* Σ (CMS/Mathematica) - *Functional Status Improvement for Patients who Received a Total Hip Replacement* Σ (CMS/Mathematica) - *Functional Status Improvement for Patients who Received a Total Knee Replacement* Σ (CMS/Mathematica) - *Pain Assessments and Target Setting for Patients with Osteoarthritis* Σ (CMS/Mathematica) - *Palliative care outpatients' experience of feeling heard and understood* (American Academy of Hospice and Palliative Medicine) - *Palliative care outpatients' experience of receiving desired help for pain* (American Academy of Hospice and Palliative Medicine) - *Patient Reported HRQOL: Overall Mental Health Following Chemotherapy* (Pacific Business Group on Health) - *Patient Reported HRQOL: Overall Physical Health Following Chemotherapy* (Pacific Business Group on Health) - *Patient Reported Outcome Measure - PHQ9 & PROMIS Depression Screening* Σ (CMS/RAND) - *Patient Reported Pain: Pain Intensity Following Chemotherapy* (Pacific Business Group on Health) - *Patient Reported Pain: Pain Interference Following Chemotherapy* (Pacific Business Group on Health) - *Patient-reported outcomes and risk variable data collection (PRO)* (CMS/Yale CORE) - *Use of Multimodal and Multidisciplinary Pain Management Therapies for Adults Prescribed Opioids* Σ (CMS/Mathematica)	20	10
Total	53	28

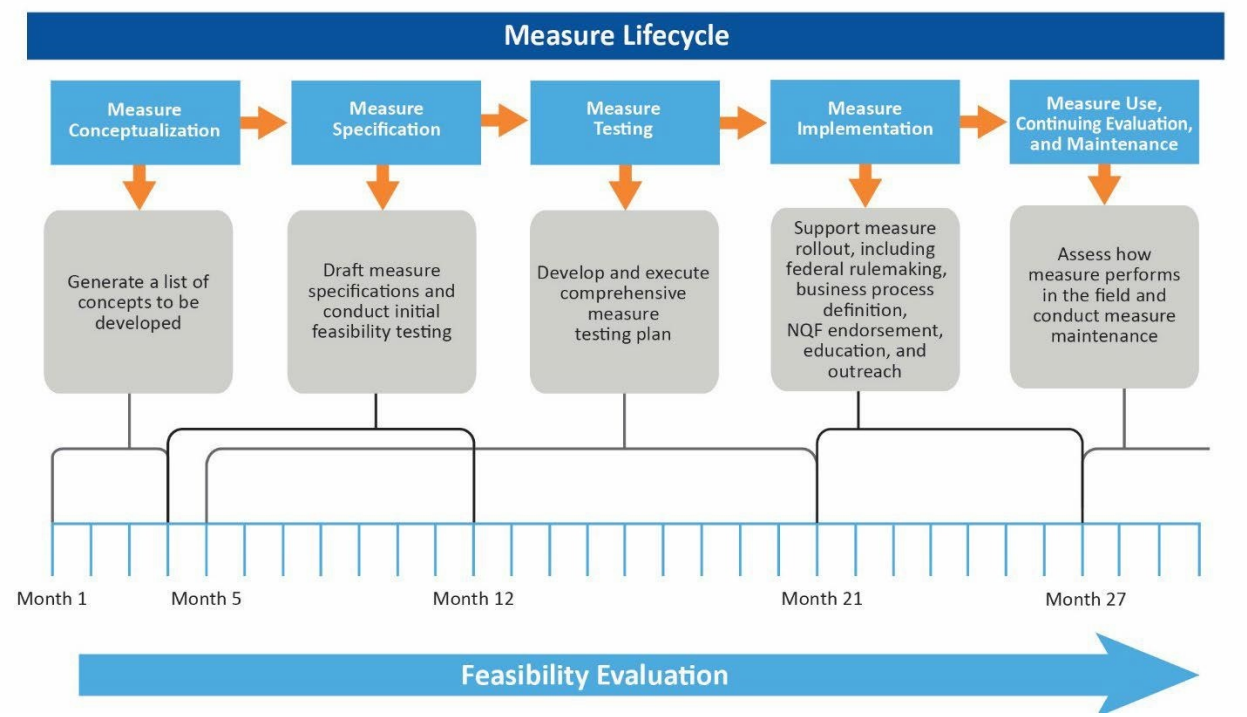
* As a measure is developed, a more suitable domain may be identified. CMS will update the priority and Meaningful Measure Area as applicable.
** Prevention measures are included in Effective Treatment.
Ω Measure title on 2019 Measures under Consideration List: *Hemodialysis Vascular Access: Practitioner Level Long-term Catheter Rate*
Σ Measure is planned to be electronically specified.

Total estimated expenditures for these 53 measures in development during FY 2019[xxxv] include $2.8 million for 21 process measures, $3.8 million for 13 outcome measures, $2.3 million for 15 patient-reported outcome performance measures, and $2.2 million for four patient engagement/ experience measures. Twenty-eight of the 53 measures were being developed as eCQMs.

[xxxv] No funding was spent on six measures; four measures are pending identification of test sites and two measures are pending completion of related hospital-level measure development and testing.

Phases of the Measure Lifecycle

Measure development can be conceived as a series of gates through which each measure must pass to advance for consideration in CMS quality programs. Measure conceptualization, specification, and testing—the first three phases in the measure lifecycle—are critical to vet and assess the viability of a measure concept prior to implementation.



Source: *Blueprint for the CMS Measures Management System, Version 15.0*

Development was suspended on one of the measures described above, *Quality of Life Assessment for Patients Who Receive Substance Use Disorder Treatment*, because testing revealed that the measure was not feasible and had low face validity. Additionally, given a lack of clinical guidelines recommending the use of quality of life assessments, some clinicians expressed doubts that the measure accurately reflected a clinician's quality of care (*CMS-Funded Measures in Development* [Appendix E], Table E-1).[xxxvi]

The remaining 52 measures are at different phases of development at the time of this report,[xxxvii] as described below. CMS will consider these measures for inclusion in the Quality Payment Program once testing has been completed.

[xxxvi] Section 1848(s)(3)(B)(iii) of the Act.
[xxxvii] As of September 30, 2019, to allow for estimated funding for the entire FY 2019

Measure Conceptualization (n = 6)

Six measures are in the conceptualization phase of the measure lifecycle. Five of the measures are estimated for completion by September 2021, and one is being considered under a recently funded eCQM measure development project. (See *CMS-Funded Measures in Development* [Appendix E], Table E-2) for additional details about these measures, including developers and timelines for completion.[xxxviii])

- These six measures include two outcome measures and four process measures. They address high-priority measure topics such as opioids and are applicable to the prioritized specialties of general medicine/crosscutting, orthopedic surgery, and pathology.

  Outcome measures:
  - *Opioids: Risk-standardized opioid-related respiratory depression rate following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)*
  - *Risk-standardized bleeding-related adverse drug event rate for patients taking anticoagulant medications following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)*

  Process measure:
  - *Annual Wellness Assessment: Preventive Care (Composite)*[xxxix]
  - *Opioid extended use rate following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)*
  - *Rate of communicating results of an amended report with a major discrepancy to the responsible provider*
  - *Rate of Notification of a New Diagnosis of Malignancy to the Responsible Provider*

Measure Specification (n = 18)

Eighteen measures are in the specification phase of the measure lifecycle. Because a measure can require further specification after testing, its status throughout development is fluid. Two of the measures are estimated for completion by September 2020; 13, by September 2021. The remaining three are being considered under a recently funded eCQM measure development project. (See *CMS-Funded Measures in Development* [Appendix E], Table E-3) for additional details about these measures, including developers and timelines for completion.[xl])

- Nine of the 18 measures (five outcome measures, one patient engagement/experience measure, and three process measures) are being developed for implementation in a specialty-specific QCDR. These measures in development are a priority for mental health and substance use conditions.

  Outcome measures:
  - *Measurement-based care (MBC): Recovery for all patients seen for mental health and substance use care*
  - *Measurement-based care (MBC): Stabilization or Reduction in Functional Impairment for all patients seen for mental health and substance use care*

[xxxviii] Section 1848(s)(3)(B)(iii) of the Act.
[xxxix] CMS completed development of this measure in FY2019 but is evaluating additional revisions that may require further development work.
[xl] Section 1848(s)(3)(B)(iii) of the Act.

- *Measurement-based care (MBC): Stabilization or Reduction in Psychotic symptoms for patients with first-episode psychosis (FEP)*
- *Measurement-based care (MBC): Stabilization or Reduction in Suicide symptoms*
- *Measurement-based care (MBC): Stabilization or Reduction in symptoms for patients with opioid use disorder (OUD)*

Patient engagement/experience measures:

- *Consumer Rating of Care Experience*

Process measures:

- *Evidence-based treatment (EBT): First Episode Psychosis Initiation & Adherence to treatment*
- *Evidence-based treatment (EBT): Initiation & adherence to medication-assisted treatment (MAT) for patients with opioid use disorder (OUD)*
- *Evidence-based treatment (EBT): Initiation, Review and Update to Suicide Safety Plan*

- The remaining nine measures include two outcome measures, two PRO-PMs, and five process measures; seven of these are being specified as eCQMs. Three measures address the high-priority topic of opioids, including two applicable to the MDP-prioritized specialties of general medicine/crosscutting and orthopedic surgery.[1] A patient safety outcome measure, *Practitioner-Level Long-Term Catheter Rate*, addresses patient safety and the prevention of health care harm and was on the 2019 Measures Under Consideration List.[7] Two patient-reported outcome performance measures assess the identified measurement gaps of "functional status pre-/post-orthopedic treatment/joint-specific."[9] The remaining three measures are applicable to the transfer of health information and interoperability for the prioritized specialty of pathology.

  Outcome measures:

  - *Opioid Safety Measure*
  - *Practitioner-Level Long-Term Catheter Rate*

  Patient-reported outcome performance measures:

  - *Functional Status Improvement for Patients who Received a Total Hip Replacement*
  - *Functional Status Improvement for Patients who Received a Total Knee Replacement*

  Process measures:

  - *High-dose opioid prescribing practices after hospital discharge following total hip (THA) or total knee arthroplasty (TKA) in previously opioid naive patients*
  - *Notification to the Provider Requesting Amylase Tests*
  - *Notification to the provider requesting thyroid screening tests*
  - *Time Interval: Critical Value Reporting for Chemistry*
  - *Use of Multimodal and Multidisciplinary Pain Management Therapies for Adults Prescribed Opioids*

Fully Specified Pending Test Site (n = 10)

Ten measures are fully specified, ready for testing, and being considered for continuation as part of a recently funded eCQM measure development project. Continued work on these measures will be dependent on test site identification for validity and reliability testing. (See *CMS-Funded Measures in Development* [Appendix E], Table E-4 for additional details about these measures, including developers and timelines for completion.[xli])

- Six of the 10 measures are condition-specific and applicable to the MACRA domain of patient and caregiver experience. Five patient-reported outcome performance measures focus on target-setting and progression toward individualized care goals via a validated assessment tool, thus demonstrating that care is personalized and aligned with patient preferences. One process measure, focused on documentation of a health care partner for patients with cognitive impairment, provides a foundation for the development of meaningful functional outcome measures.

  Patient-reported outcome performance measures:
  - *Changes in Patient Reported Outcomes (PROs) Following Non-Emergent Percutaneous Coronary Intervention (PCI)*
  - *Disease Activity Assessments and Target Setting in Patients with Rheumatoid Arthritis*
  - *Functional Status Assessment and Target Setting for Patients with Congestive Heart Failure*
  - *Functional Status Assessments and Target Setting for Patients with Asthma*
  - *Pain Assessments and Target Setting for Patients with Osteoarthritis*

  Process measure:
  - *Documentation of a Health Care Partner for Patients with Dementia or Mild Cognitive Impairment*

- Two of the 10 measures are setting-specific process measures focused on follow-up and timely exchange of information. Applicable to the MACRA domain of care coordination, these measures will support follow-up care for patients with a diagnosis of asthma who are seen in the emergency department.

  Process measures:
  - *Care Coordination after Asthma-Related Emergency Department Visit*
  - *Care Coordination after Asthma-Related Emergency Department Visit: EP Follow-up*

- One of the 10 measures is a general medicine/crosscutting measure focused on cognitive assessment for the aged population. This process measure is applicable to the MACRA domain of clinical care and the Meaningful Measure Area of prevention, treatment, and management of mental health.

  Process measure:
  - *Cognitive Impairment (CI) Assessment Among Older Adults (75 Years and Older)*

- Another of the 10 measures is applicable to the MACRA domain of safety and the general medicine/crosscutting specialty. Under the topic of medication safety, this outcome measure

[xli] Section 1848(s)(3)(B)(iii) of the Act.

pertains to adverse drug events for anticoagulants and is directly relevant to the gaps identified in the 2017 *CMS MDP Environmental Scan and Gap Analysis Report*.[9]

Outcome measure:

- *Adverse Drug Events for Patients Taking Anticoagulant Medications in an Ambulatory Setting*

Measure Testing (n = 18)

Eighteen measures are undergoing data collection and measure testing that will inform decisions about use of the measures. The estimated completion date is January 2020 for one measure, June 2020 for one measure, September 2021 for 15 measures, and June 2022 for one measure. (See *CMS-Funded Measures in Development* [Appendix E, Table E-5 for additional details about these measures, including developers and timelines for completion.[xlii])

- Three of the 18 measures are being tested in a specialty-specific QCDR. All are process measures applicable to the MACRA domain of clinical care. These measures are applicable to mental health and substance use, a prioritized specialty identified in the MDP.[1]

  Process measures:

  - *Measurement-based care (MBC): Initial standardized assessment for all patients seen for mental health and/or substance use care*
  - *Measurement-based care (MBC): Monitoring of symptoms, functioning, and recovery for all patients seen for mental health and substance use care*
  - *Measurement-based care (MBC): Treatment or care plan adjustment for all patients seen for mental health and/or substance use care*

- Ten of the 18 measures are specific to the MACRA domain patient and caregiver experience focusing on functional outcomes and experience of care. Seven are patient-reported outcome performance measures specific to the prioritized specialties of oncology (4), orthopedic surgery (1), general medicine/crosscutting (1), and one measure that is applicable to both general medicine/crosscutting and mental health and substance use conditions. The remaining three are survey measures categorized within the area of patient/caregiver experience, two of which fill an identified gap specific to palliative care and the third to general medicine/crosscutting.

  Patient-reported outcome performance measures:

  - *Care goal achievement following total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)*
  - *Patient Reported HRQOL: Overall Mental Health Following Chemotherapy*
  - *Patient Reported HRQOL: Overall Physical Health Following Chemotherapy*
  - *Patient Reported Outcome Measure—PHQ9 & PROMIS Depression Screening*
  - *Patient Reported Pain: Pain Intensity Following Chemotherapy*
  - *Patient Reported Pain: Pain Interference Following Chemotherapy*
  - *Patient-reported outcomes and risk variable data collection (PRO)*

  Patient engagement/experience measure:

  - *CAHPS® Measure Modification for CPC+ Practices*
  - *Palliative care outpatients' experience of feeling heard and understood*
  - *Palliative care outpatients' experience of receiving desired help for pain*

[xlii] Section 1848(s)(3)(B)(iii) of the Act.

- The remaining five of the 18 measures in active testing include three outcome measures and two process measures that spread across three MACRA domains and diverse clinical topics. Four of the five measures fill identified gaps specific to the prioritized specialties of pathology, orthopedic surgery, and general medicine. One measure is applicable to the prioritized specialty of radiology.

  Outcome measures:
  - *Excessive Radiation Dose or Inadequate Image Quality for Diagnostic Computed Tomography (CT) in Adults*
  - *Heart Failure Admission Measure*
  - *Risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA)* electronic clinical quality measure (eCQM)

  Process measures:
  - *Notification to the provider requesting myoglobin or CK-MB*
  - *Time Interval: Critical Value Reporting for Troponin*

Inventory of Applicable Quality Measures

The inventory of applicable quality measures describes the clinician measures available in 2020 for reporting by participants in the Quality Payment Program. The inventory consists of the 2020 MIPS measures, MIPS APM measures, 2020 MIPS QCDR measures, and measures approved for use in 2020 Advanced APMs.

The 2020 MIPS measures were posted for stakeholder review and input through the rulemaking process, which culminated in the publication of the CY 2020 Physician Fee Schedule final rule on November 15, 2019, taking effect on January 1, 2020.[8]

2020 Inventory of MIPS Quality Measures Included in the CY 2020 Physician Fee Schedule Final Rule

For the 2019 performance period, 257 MIPS measures were available for reporting. During the CY 2020 rulemaking process, 42 quality measures were removed[8(p. 63398-63427)] and three new quality measures were added[8(p. 63205-63211)] to MIPS. The rulemaking process yielded 218 quality measures available for the 2020 performance period, including 42 intermediate outcome or outcome measures, 18 patient-reported outcome performance measures, 147 process measures, and seven efficiency measures; the remaining four are structural or patient engagement/ experience measures.

Of the 218 quality measures, 147 are categorized as high-priority to assist clinicians in meeting the reporting requirements for a positive payment adjustment. CMS included high-priority measures in all specialty sets so that MIPS eligible clinicians should be able to select a specialty set that reflects their scope of practice and report on measures within that set.[33] CMS modified the specialty measure sets based on review of updates to quality measure specifications, changes finalized through rulemaking, and feedback from specialty societies.[8(p. 63214)]

For CY 2020, CMS broadened the clinical scope of the specialty-specific sets with the addition of seven new sets—endocrinology, nutrition/dietitian, pulmonology, chiropractic medicine,

clinical social work, audiology, and speech pathology—for a total of 46 measure sets available for reporting.[8(p. 63214-63398)] An interactive tool to view the comprehensive list of MIPS measures is available at https://qpp.cms.gov/mips/quality-measures.

Eligible clinicians who participate in MIPS APMs are scored by a standard intended to reduce the reporting burden by eliminating the need to report both APM and MIPS measures.[34] The following 10 MIPS APMs will satisfy the quality measure reporting requirements for the 2020 performance year:

- Bundled Payments for Care Improvement Advanced
- Comprehensive ESRD Care Model[xliii] (all tracks)
- Comprehensive Primary Care Plus Model (all tracks)
- Independence at Home Demonstration
- Maryland Total Cost of Care Model (Maryland Primary Care Program)
- Medicare Accountable Care Organization (ACO) Track 1+ Model
- Medicare Shared Savings Program (all tracks)
- Next Generation ACO Model
- Oncology Care Model[xliv] (all tracks)
- Vermont All-Payer ACO Model (Vermont Medicare ACO Initiative)

Further information of MIPS APMs for performance year 2020 is available on the Quality Payment Program website at https://qpp.cms.gov/apms/mips-apms and in the CY 2020 Physician Fee Schedule final rule.[8(p. 63006)]

QCDR Quality Measures Approved for 2020 MIPS Reporting

QCDRs are designed to expand reporting options for MIPS eligible clinicians, including those without sufficient specialty-applicable MIPS quality measures. QCDRs may report on MIPS quality measures and/or QCDR measures developed by QCDRs and submitted for CMS consideration. For the 2020 MIPS performance period, CMS approved 63 QCDRs as outlined in the *2020 Qualified Clinical Data Registry (QCDRs) Qualified Posting*[35]*;* 44 of the 63 are focused on a single specialty. Each QCDR has at least one outcome or other high-priority measure among six or more quality measures, consistent with the 2020 requirement for eligible clinicians reporting under MIPS.

Table 5: QCDRs Applicable to MDP-Prioritized Specialties

Specialty	# of QCDRs
Allergy/Immunology	1
Emergency medicine	4
General medicine/Crosscutting	9
Mental health/Substance use	3
Neurology	3
Oncology	5
Orthopedic surgery	7
Palliative care	2
Pathology	3
Physical medicine and rehabilitation	6
Radiology	4
Rheumatology	3

[xliii] This includes the Comprehensive ESRD Care (CEC) Model (LDO arrangement), Comprehensive ESRD Care (CEC) Model (non-LDO two-sided risk arrangement), and Comprehensive ESRD Care (CEC) Model (non-LDO one-sided risk arrangement).
[xliv] This includes the Oncology Care Model (OCM) (one-sided Risk Arrangement) and Oncology Care Model (OCM) (two-sided Risk Arrangement).

Thirty-three unique QCDRs approved for 2020 reporting focus on clinical specialties with measurement gaps prioritized in the MDP or subsequent gap analyses, including general medicine/crosscutting. (In Table 5, the counts add up to more than 33 because some QCDRs are applicable to more than one prioritized specialty.)

Beginning with the 2021 performance period, all QCDR measures submitted for self-nomination must be fully developed with completed testing results at the clinician level, as defined by the CMS Blueprint for the CMS Measures Management System. This new requirement is consistent with the testing requirement for MIPS quality measures prior to submission of those measures during the annual the Call for Measures.[8(p. 63067)]

The approved 2020 QCDRs and corresponding measures list are located at: https://qpp.cms.gov/about/resource-library.

CMS Advanced APM Quality Measures

In the Advanced APM track of the Quality Payment Program, eligible clinicians who achieve threshold levels of participation based on Medicare payments or patient volume can earn a 5% incentive payment under the Quality Payment Program.[8(p. 62946),36] Qualifying APM participants are excluded from MIPS reporting requirements and payment adjustments.

The Center for Medicare & Medicaid Innovation (CMS Innovation Center) works in consultation with clinicians to test new payment and service delivery models. Models are designed to reduce expenditures while preserving or enhancing the quality of care for beneficiaries. One criterion for Advanced APMs is that they must base payment for items and services in part on MIPS-comparable quality measures, which CMS has interpreted as measures that are reliable and valid and have an evidence-based focus. See *CMS Advanced APM Quality Measures Inventory* (Appendix F) for the list of measures for each Advanced APM included in the 2020 Quality Payment Program.

V. Summary and Conclusions

The activities captured in the 2020 MDP Annual Report highlight CMS's engagement and collaboration with patients, families, and clinicians to ensure meaningful clinician measure development and reward high-value Medicare clinicians and services. The patient voice remains at the center of the CMS Strategic Priorities to guide clinicians, health care systems, and policy makers in their combined efforts to provide high-quality and efficient care. As steps are taken to modernize CMS value-based programs, the needs and values of patients, clinicians, specialty societies, and industry stakeholders will be incorporated to create a cohesive and transparent quality reporting system.

Multiple efforts in 2019 underscored CMS's commitment to co-designing quality initiatives alongside clinicians and industry stakeholders. The MACRA funding for the cooperative agreements award recipients supports the development of quality measures that reflect CMS prioritized specialties, and through this vehicle, recipients are developing meaningful measures applicable to their scope and practice. As CMS transitions to the future state of MIPS, the partnership with clinicians and specialty societies will be key in the development of MVP measure sets by specialty or condition. Clinician expertise and experiences will be a main resource for CMS in operationalizing the MVP measure sets.

Population health was identified as a key measurement area for the MVP measure set foundation. The 2020 MDP environmental scan and gap analysis will expand upon the population health gaps identified in the *NQF Report on 2018 Activities to Congress and the Secretary of Health and Human Services*[30] to inform stakeholders about the current landscape of population health measures across all CMS programs. The gap analysis will inform CMS and other stakeholders of areas for new measure development and where existing population health concepts could be adapted to clinician-level measurement for use within the MVP measure sets.

CMS has remained steadfast in its mission to reduce clinician reporting burden and retain only high-value MIPS quality measures. In CY 2020, 42 topped out, duplicate, or low-bar measures were removed from MIPS. An overall five-year reduction in clinician quality measures by 22% has occurred during the transition from PQRS to MIPS.

In this 2020 MDP Annual Report, CMS provides a summary of development activities and expenditures for CMS-funded clinician quality measures, as well as an inventory of measures selected for the 2020 Quality Payment Program. At the time of this report, 52 quality measures remain in development, 27 of which are electronically specified. CMS's top priorities in quality measure development are to integrate the patient voice and collaborate with clinicians and other stakeholders. As demonstrated in this report, meaningful results were seen in the successful reduction of the number of unnecessary MIPS quality measures and the narrowing of clinician-level measurement gaps within the Quality Payment Program. Through these achievements and a commitment to fulfill the vision of a value-based health care system, CMS will support what is most important to patients.

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