Quality Payment
PROGRAM

2022 Episode-Based Cost Measures Field Testing

Wave 4 Measure Development Process

Winter 2022 Field Testing

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1.0 Introduction

This document provides the project background and details of the process for developing the 5 episode-based cost measures being field tested from January 10 to February 25, 2022.

This document has been publicly posted as part of field testing. Field testing is part of the measure development process and is an opportunity for clinicians and other stakeholders to learn about episode-based cost measures and provide input on the draft specifications. During field testing, we'll:

- Distribute Field Test Reports on the Quality Payment Program website[1] for group practices and solo practitioners who meet the minimum number of cases for each measure.
- Post draft measure specifications (i.e., measure methodology and codes list) and supplemental documentation, such as testing results, on the MACRA Feedback page.[2]
- Collect stakeholder feedback on the draft specifications for each measure through an online survey.

We're collecting stakeholder feedback from **January 10 to February 25, 2022.**
To provide feedback on the draft measures specifications, please navigate to the 2022 Cost Measures Field Testing Feedback Survey.

This process document contains 2 sections:

- Section 1 provides an overview of the project and the overall approach for development.
- Section 2 describes the process used to develop each component of the episode-based cost measures.

This document focuses on the Wave 4 measure development process. The 2020 Measure Development Process document provides information on Wave 3 of development and contains additional details on components of episode-based cost measures, which can be found on the MACRA Feedback Page.[3]

[1] CMS, "Quality Payment Program Account," Quality Payment Program, https://qpp.cms.gov/login
[2] CMS, "Cost Measure Field Testing", MACRA Feedback Page, https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback
[3] CMS, "Wave 3 Measure Development Process", MACRA Feedback Page, https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback.

1.1 Project Background

The Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA) required CMS to collaborate with clinician and other stakeholder communities to develop measures for potential implementation in the cost performance category of the Merit-based Incentive Payment System (MIPS), one of the tracks of the Quality Payment Program (QPP). CMS has contracted with Acumen, LLC ("Acumen") to develop methodology for analyzing cost, as appropriate, through consideration of patient condition groups and care episode groups.

Acumen has implemented a measure development process that relies on input from a large number of stakeholders, including multiple groups of clinicians affiliated with a broad range of professional societies, to develop clinically appropriate and transparent measures that provide actionable information to clinicians.

1.2 Overview of Episode-Based Cost Measures

Episode-based cost measures represent the cost to Medicare for the items and services furnished to a patient during an episode of care ("episode"). The term "cost" generally means the standardized Medicare allowed amount, which includes both Medicare and trust fund payments and any applicable deductible and coinsurance amounts on traditional, fee-for-service claims. Claims data from Medicare Parts A and B are used to construct the episode-based cost measures,[4] and some measures also include data from Medicare Part D.[5]

Episode-based cost measures are intended to measure clinician resource use based on only those costs that occur as part of an attributed clinician's care management. An episode includes the costs from services that are clinically related to the care being assessed during a defined period, called the episode window. Episodes include services that identify the clinician who is managing or treating a patient's condition, routine care services, and consequences of care. Episodes don't include services that are clinically unrelated.

The measure sums up the clinically related costs during the episode window and risk adjusts them to accommodate accurate comparison of cost across clinicians. Risk adjustment is intended to account for characteristics of patients that can affect spending and may be outside of the clinician's reasonable influence (e.g., age, pre-existing conditions).

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[4] Claim payments are standardized to account for differences in Medicare payments for the same service(s) across Medicare providers. Payment standardized costs remove the effect of differences in Medicare payment among health care providers that are the result of differences in regional health care provider expenses measured by hospital wage indexes and geographic price cost indexes (GPCIs) or other payment adjustments such as those for teaching hospitals. For more information, please refer to the "CMS Part A and Part B Price (Payment) Standardization - Basics" and "CMS Part A and Part B Price (Payment) Standardization - Detailed Methods" documents posted on the CMS Price (Payment) Standardization Overview page. (https://www.resdac.org/articles/cms-price-payment-standardization-overview).

[5] Claim payments from Part D are payment standardized to allow resource use comparisons for providers who prescribe the same drug, even if the drug products are covered under varying Part D plans, produced by different manufacturers, or dispensed by separate pharmacies. For more information, please refer to the "CMS Part D Price (Payment) Standardization" document posted on the CMS Price (Payment) Standardization Overview page. (https://www.resdac.org/articles/cms-price-payment-standardization-overview).
Part D branded drug costs are also adjusted to account for post-point of sale drug rebates; more information can be found in the Methodology for Rebates in Part D Standardized Amounts on the MACRA Feedback Page (https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback).

Currently, there are 4 types of episode groups that serve as the basis for cost measures:

- Procedural episode groups focus on procedures of a defined purpose or type, such as surgeries.
- Acute inpatient medical condition ("acute") episode groups represent treatment for self-limited acute illness or treatment for flares or an exacerbation of a condition that requires a hospital stay. One measure being field tested in 2022 is based on an acute episode group framework:
    - **Psychoses/Related Conditions** (psych)
- Chronic condition episode groups account for the ongoing management of a disease or condition. Three measures being field tested in 2022 are based on a chronic condition episode group framework:
    - **Heart Failure** (heart_fail)
    - **Major Depressive Disorder** (maj_depress)
    - **Low Back Pain** (low_back)
- Wave 4 is the first wave of development to include an episode-based cost measure centered around a setting of care rather than a unique condition or procedure, specifically centered around comprehensively assessing emergency department care. The **Emergency Medicine** (emergency) measure being field tested in 2022 focuses on the care provided by clinicians in the emergency department and includes visits leading to both discharge and hospital admission.

The short form name of each measure (provided in parentheses after the measure name above) is used in the file names of the Draft Cost Measure Methodology and Draft Cost Measure Codes List files, which provide full details of the measure specifications and which will be available on the MACRA Feedback Page at the start of field testing.

Figures 1, 2, and 3 below present constructed episode examples for procedural and acute condition episode groups, chronic condition episode groups, and emergency medicine episode groups, respectively.

Figure 1. Diagram Showing a Constructed Episode for Procedural and Acute Inpatient Medical Condition Episodes

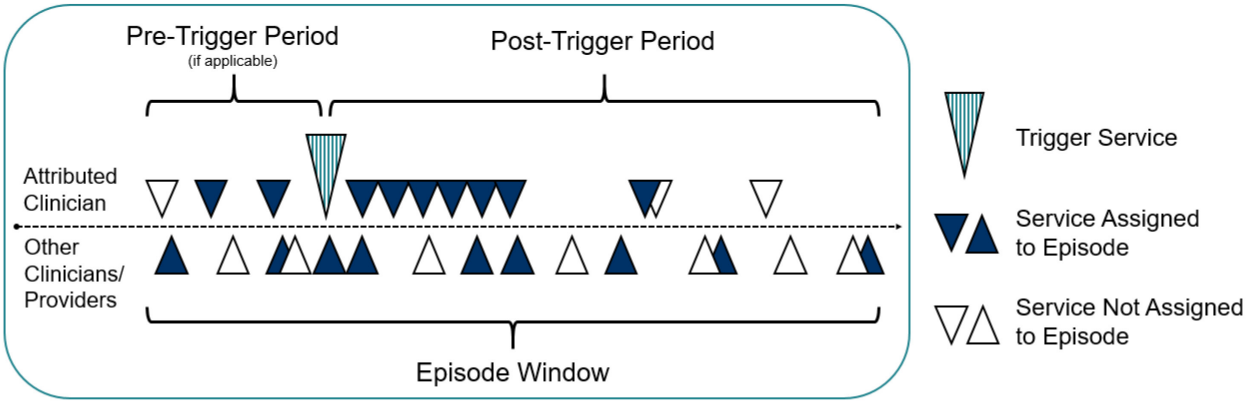


Figure 2. Diagram Showing a Constructed Episode for Chronic Condition Episodes

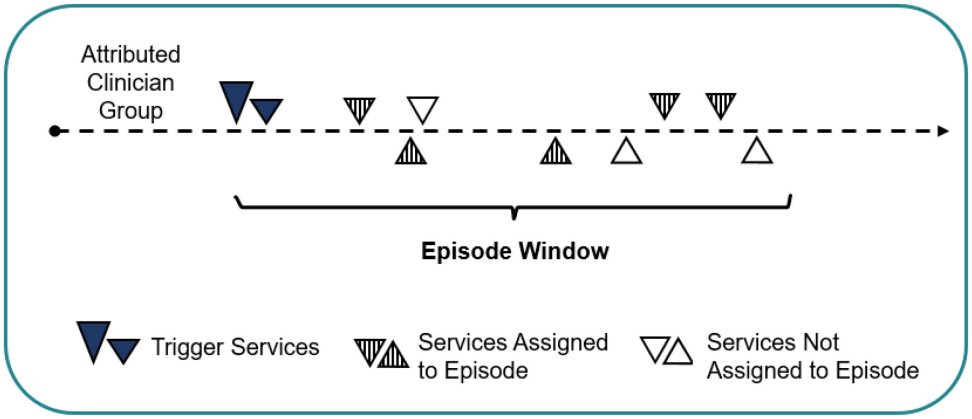
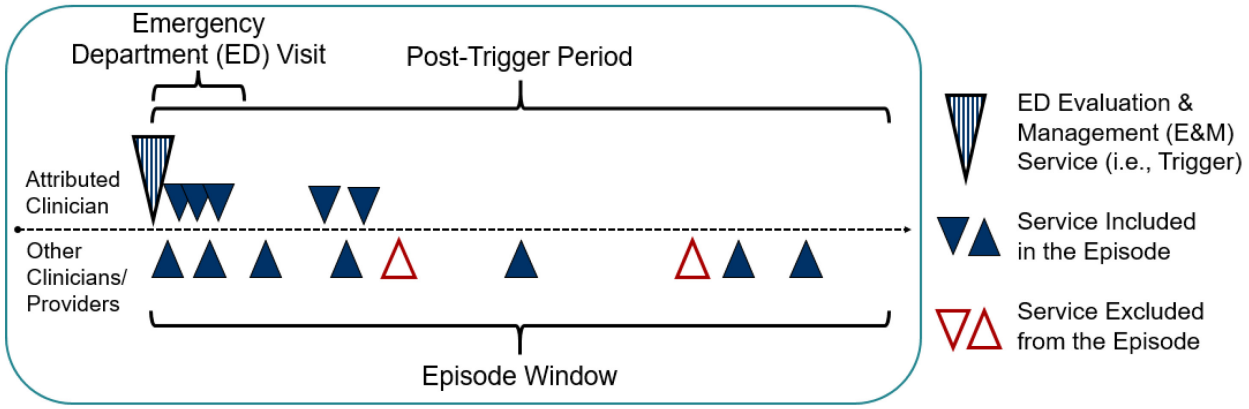


Figure 3. Diagram Showing a Constructed Episode for Emergency Medicine Episodes



1.3 Process for Developing the Cost Measures

Stakeholder input is critical to the development of robust, meaningful, and actionable episode-based cost measures. Throughout the measure development process, Acumen seeks input from clinicians and other stakeholders to inform the development of the cost measures. Acumen incorporates input from the following stakeholder input activities:

(i) Technical Expert Panel (TEP)
(ii) Clinical Subcommittees (CS) and Clinician Expert Workgroups
(iii) Person and Family Engagement
(iv) Field Testing

The TEP serves a high-level advisory role and provides guidance on the overall direction of measure development, while Clinical Subcommittees and Clinician Expert Workgroups make recommendations about clinical specifications for episode-based cost measures. Through person and family engagement, patients and caregivers provide feedback that informs key components of cost measure development. The field testing period offers all stakeholders another opportunity to provide input on the cost measurement approach. The remaining sub-sections of this section describe each stakeholder input activity and its role in the development of episode-based cost measures for this project.

1.3.1 Technical Expert Panel (TEP)

Acumen convenes a TEP to gather high-level guidance on topics across the measure development process. The TEP is a standing TEP, meaning that it retains the same composition over multiple meetings.

Acumen has held 2 public calls for nominations in 2016 and 2019,[6] and the current TEP has 20 members. The TEP is composed of members from different clinical areas, academia, health care and hospital administration, and patient and family representatives. TEP members are listed in Appendix A.

To date, Acumen has held 9 TEP meetings (in August 2016, December 2016, March 2017, August 2017, May 2018, November 2018, December 2018, February 2020, and July 2021). Each meeting covers overarching topics related to cost measures, such as on the development of a framework to assess the costs of care in a novel area (e.g., chronic conditions), or principles to guide the measure lifecycle (e.g., how to prioritize clinical areas for future development). Future TEP meetings are planned to gather essential expert input on additional measure development and maintenance topics.

1.3.2 Clinical Subcommittees (CS) and Clinician Expert Workgroups

Acumen gathers input from expert stakeholders during the measure development process to inform 2 main processes: (i) measure prioritization, based on feedback from Clinical Subcommittees and public comments, and (ii) development of measure specifications, based on feedback from Clinician Expert Workgroups.

Stakeholder Input on Measure Conceptualization and Prioritization

In previous waves of development, Acumen used an approach wherein sets of Clinical Subcommittees, each focused on a particular clinical area, convened to recommend episode

[6] CMS, "Technical Expert Panels" CMS Measures Management System, https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TEP-Currently-Accepting-Nominations.html

groups to develop into cost measures and to provide initial input on the measures' specifications. Members of Clinical Subcommittees are nominated through a call for Clinical Subcommittee Nominations.

The work of the Clinical Subcommittees builds off of the previous work of the Clinical Committee convened from August to September 2016. This Committee included more than 70 clinicians from over 50 professional societies who provided expert input on identifying a draft list of episode groups for cost measure development and determining the billing codes that trigger each episode group. The clinical review and recommendations obtained from the Clinical Committee were used to inform CMS's posting in December 2016 of a Draft List of MACRA Episode Groups and Trigger Codes and an accompanying document on episode-based cost measure development for the Quality Payment Program (together referred to as the "December 2016 posting").[7] This draft list of episode groups and episode trigger codes served as a starting point for measure development.

In Wave 4, Acumen obtained stakeholder input on candidate episode groups through an extended public comment period from December 2020 to February 2021 instead of convening Clinical Subcommittees. This approach addressed stakeholder feedback expressing interest in more flexible participation options for specialty societies, professional associations, and clinicians during the COVID-19 pandemic. The public comment period also widened the range of stakeholders who could contribute feedback. In addition to posting a Call for Public Comment,[8] Acumen also hosted 2 office hour sessions for specialty societies to address questions, posted a presentation recording with additional information, and sent multiple email notifications to various relevant stakeholders and email lists. This approach will be revisited for future waves of development.

During this public comment period, Acumen received 36 comments via email and survey responses from 25 organizations, 8 individuals, and 2 person and family stakeholders. More information about the public comment period and the comments received is available in the Wave 4 Measure Development Public Comment Summary Report on the MACRA Feedback Page.[9]

Expert Panel Input on Measure Specification

Acumen also convenes measure-specific Clinician Expert Workgroups, which are smaller groups that provide detailed input on each component of the episode-based cost measures. These workgroups were introduced following feedback from members of the Wave 1 Clinical Subcommittees. Acumen works with CMS to compose balanced workgroups reflecting public comment or Clinical Subcommittee suggestions of the specialties and types of expertise and experience that would be most relevant to the selected episode group and the clinicians who would be attributed the measure. Workgroup composition has drawn from the Clinical Subcommittees or by recruiting clinicians and other members of the healthcare community with relevant expertise through outreach and/or a standing pool of nominees.

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[7] CMS, "Draft List of MACRA Episode Groups and Trigger Codes," MACRA Feedback Page (December 2016), https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/draft-list-of-care-episode-and-patient-condition-groups-and-codes.zip

[8] CMS, "MACRA Episode-Based Cost Measures: Wave 4 Measure Development Call for Public Comment," Public Comment Page: Currently Accepting Comments, https://www.cms.gov/files/document/wave-4-measure-development-call-public-comment.pdf

[9] CMS. "Wave 4 Public Comment Summary," MACRA Feedback Page, https://www.cms.gov/files/document/wave-4-public-comment-summary.pdf

The Wave 4 Clinician Expert Workgroups met via a webinar in June 2021 to discuss initial measure specifications for all components of the measure, with a focus on measure scope, framework, and triggering,[10] followed by a webinar in August/September 2021 for detailed discussions on service assignment, risk adjustment, and other refinements.[11] The Psychoses/Related Conditions workgroup, which was originally convened during Wave 2 of measure development and met several times to provide initial input on measure specifications, was reconvened in October 2021 for a meeting to discuss refinements to the measure.[12] After field testing, the workgroups will revisit and refine the measure specifications based on testing results and consideration of the stakeholder feedback received during field testing. The workgroups will also evaluate the final measures by reviewing the final specifications and testing results of the measures.

Each Clinician Expert Workgroup made detailed recommendations on the following: (i) the codes for trigger events, (ii) the length of the episode and attribution windows, (iii) the sub-groups to compare like patients, (iv) the services for which costs are included in the measure, (v) the variables to include in the risk adjustment model, and (vi) the measure exclusion criteria.

The workgroups providing input on the 5 measures undergoing field testing in 2022 represent a total of 86 members affiliated with 66 professional societies, as listed in Table 1 below.

Table 1. Information on the Clinician Expert Workgroups with Measures in 2022 Field Testing

Measure-Specific Clinician Expert Workgroup	# Workgroup Members	# Affiliated Specialty Societies
Emergency Medicine	18	20
Heat Failure	20	19
Low Back Pain	21	21
Major Depressive Disorder	14	18
Psychoses/Related Conditions	18	17

1.3.3 Person and Family Engagement

Acumen incorporates person and family perspectives into the measure development process to ensure that the measure incorporates relevant experiences from patients and caregivers. Acumen's approach to gather and incorporate this feedback has changes across the waves of development.

During Waves 1 through 3, Acumen convened a Person and Family Committee (PFC) comprised of Medicare patients and caregiver/family members of Medicare patients who had experience with health care and/or patient advocacy, health care delivery, concepts of value, and outcomes that are important to patients across delivery/disease/episodes of care.

[10] CMS, "Summary of Wave 4 Workgroup Meetings," MACRA Feedback Page, https://www.cms.gov/files/zip/summary-wave-4-workgroup-meetings.zip
[11] CMS, "Summary of Wave 4 Service Assignment & Refinement (SAR) Workgroup Meetings," MACRA Feedback Page, https://www.cms.gov/files/zip/summary-wave-4-service-assignment-refinement-sar-workgroup-meetings.zip
[12] CMS, "Summary of Psychoses/Related Conditions Workgroup Webinar", MACRA Feedback Page, https://www.cms.gov/files/document/summary-psychosesrelated-conditions-workgroup-webinar.pdf

Throughout the measure development process, over 100 interviews were conducted with the PFC members.

Beginning with the February 2020 TEP and for Wave 4 of measure development, Acumen transitioned to a Person and Family Engagement (PFE) process where patients and caregivers provide direct input in the clinician expert discussions. The TEP includes 2 patients who provide high-level guidance on topics, such as measure conceptualization and prioritization. The Clinician Expert Workgroups also include approximately 5 individuals with applicable lived experiences for the selected measure concepts, known as Person and Family Partners (PFPs), who can offer direct, integrated input during the workgroup meetings and structured interviews. In Wave 4, PFPs for each episode group were interviewed and provided input on the following: (i) patient diagnosis and the start of treatment, (ii) the healthcare providers and care team involved in the patient's care, (iii) the services furnished and episode duration related to the patient's care, and (iv) indicators of care quality. Similar to in previous years, this feedback was shared with the Clinician Expert Workgroups for their consideration as they developed the episode group.

Through PFE representation in the TEP for high-level guidance and PFPs involvement at each touchpoint with the Workgroups during measure specification, PFE is present throughout the measure development process. The impact of PFE input on measure specifications through Wave 3 is described in the "Summary of Person and Family Engagement (PFE) and Input for Wave 3 Episode-Based Cost Measure Development" document on the MACRA Feedback Page.[13] In future waves of cost measure development, person and family perspectives will be incorporated through more integrated methods as Acumen and CMS look to further engage patients and caregivers.

1.3.4 Field Testing

CMS conducts field testing to provide clinicians an opportunity to gain experience with and review their performance on cost measures under development. Extensive field testing outreach activities aim to ensure that clinicians will understand the episode-based cost measures and what actions they could take to improve their performance on the measures, before the measures are implemented into a future MIPS performance period. During the field testing period, clinicians and clinician groups meeting the minimum number of episodes for each cost measure receive an informational Field Test Report. These reports aim to illustrate the clinician's performance on a cost measure and provide detailed information to help clinicians understand their score, including the types of services that comprise a large or small share of episode costs.

The field testing feedback summary reports for field testing the episode-based cost measures from Waves 1, 2, and 3, which took place in October to November 2017, October to November

[13] CMS, "Summary of Person and Family Engagement (PFE) and Input", MACRA Feedback Page, https://www.cms.gov/files/document/summary-person-and-family-engagement.pdf

2018, and August to September 2020, respectively, are available on the MACRA Feedback Page.[14,15,16,17]

Field testing for the 4 new Wave 4 measures under development and the refined Psychoses/Related Conditions measure is taking place from January 10 to February 25, 2022. Clinicians and clinician groups who meet the minimum number of episodes during the measurement period are encouraged to review their Field Test Report on the Quality Payment Program website. Clinicians who don't receive a Field Test Report are invited to review a Mock Field Test Report and provide feedback on the report structure and metrics. All stakeholders, regardless of whether they have received a Field Test Report, are encouraged to review the Frequently Asked Questions (FAQ) document, National Summary Data Report containing testing results, and the draft measure specifications, and submit their feedback through the online field testing feedback survey.[18] A document containing the specific questions about the measures for stakeholders to reference while reviewing the materials is available on the MACRA Feedback Page.

CMS and Acumen conduct a range of education and outreach activities to inform stakeholders about field testing. In addition to the publicly posted materials described above, CMS and Acumen host information sessions to engage with stakeholders. CMS and Acumen recorded and distributed a national field testing webinar recording that provides details regarding the field testing process and draft measure specifications for measures undergoing field testing.[19] Acumen also holds specialty society office hours during field testing for targeted specialty societies who represent specialties that are likely to be attributed the measures undergoing testing; these sessions provide information about Field Test Reports and how they can be accessed, how to submit comments, and how to access additional information about the measures. They also provide opportunities for bidirectional question-and-answer to improve stakeholder understanding. For 2022 field testing, Acumen is expanding education and outreach efforts to increase engagement with the wider stakeholder community as well as specialty societies and organizations during measure development, including sending additional outreach emails to build engagement around the field testing period and encourage stakeholders to submit comments during field testing while the measures are still being developed.

Following field testing, Acumen analyzes the measure-specific field testing feedback received and provides a summary report to each Clinician Expert Workgroup to inform measure refinements. A full field testing feedback summary will also be posted on the MACRA Feedback Page.

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[14] Field Testing Feedback Summary Report for Eight MACRA Episode-Based Cost Measures," Quality Payment Program (June 2018), https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2018-field-testing-feedback-summary-report.pdf

[15] "October-November 2018 Field Testing Feedback Summary Report for MACRA Episode-Based Cost Measures," Quality Payment Program (May 2019), https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2019-ft-feedback-summary-report.pdf

[16] In addition to the episode-based cost measures developed in Wave 2, the October to November 2018 field testing period included field testing of the re-evaluated Medicare Spending Per Beneficiary (MSPB) clinician and Total Per Capita Cost (TPCC) measures.

[17] 2020 Field Testing Feedback Summary Report for 5 Episode-Based Cost Measures (December 2020), https://www.cms.gov/files/document/macra-2020-ft-feedback-summary-report.pdf

[18] Stakeholders can submit feedback through this online field testing feedback survey: https://acumen.qualtrics.com/jfe/form/SV_7VByoPD9BPTdR3w

[19] CMS, "MACRA Wave 4 Cost Measures Field Testing Webinar recording," Quality Payment Program Webinar Library, https://qpp.cms.gov/about/webinars

2.0 Components of Episode-Based Cost Measures

The measure development approach incorporates extensive stakeholder input on each component of the episode-based cost measures.

Episode-based cost measures have 5 essential components:

- Defining the episode group
- Attributing the episode group to clinician(s)
- Assigning costs to the episode group
- Risk adjusting
- Aligning cost with quality

The following sub-sections describe each component and summarize the process used for developing that component. Further details regarding the construction of each episode-based cost measure are available on the Draft Cost Measure Methodology documents on the MACRA Feedback Page.

2.1 Definition of the Episode Group

This sub-section describes the first component of episode-based cost measures: the definition of the episode group.

2.1.1 Description of this Component

Episodes are defined by the codes that trigger (or open) the episode, as these codes determine the patient cohort included in the episode group. These episode trigger codes are identifiable on Medicare claims in a patient's history and indicate the occurrence of the episode. To enable meaningful clinical comparisons, episode groups may also be divided into more granular, mutually exclusive episode sub-groups based on clinical criteria (e.g., information available on the patient's trigger claim), wherever appropriate. Episode sub-groups are useful in ensuring clinical comparability so that the corresponding cost measure fairly compares clinicians with a similar patient case-mix. Sub-groups must be balanced against the need to have an adequate number of cases that can be attributed to a clinician.

2.1.2 Process for Developing this Component

During the June 2021 webinar meetings, the Wave 4 Clinician Expert Workgroups provided detailed input on the scope and the trigger codes of the episode group selected by the Clinical Subcommittee for development. Using the episode trigger codes determined by input from the internal Acumen clinician team and stakeholder feedback from the Wave 4 Public Comment Posting as a starting point, Acumen ran initial analyses on starting trigger codes for discussion on recommended refinements to the trigger codes and a vote at the June webinar meetings. Workgroup members also discussed the measure framework and triggering algorithms and considered potential adjustments specific to each measure.

Workgroup members also held detailed discussions on how to account for various sub-populations of the patient cohort that they believed the episode group should take into consideration to ensure clinical comparability, informed by statistics provided by Acumen on the frequency and costs associated with these different sub-populations. Workgroup members

considered the appropriate method of accounting for these sub-populations of patients: creating episode group sub-groups, risk adjusting or excluding the sub-population (described further in Section 2.4), or monitoring the sub-population for testing and future consideration. Members also identified other sub-populations of interest for further investigation. Members provided their input via a poll, which Acumen's clinicians used as guidance on how to implement these sub-populations into the measure specifications. These were brought back to the workgroups for discussion with further analyses and confirmation of how the measure would account for each sub-population.

2.2 Attribution of Episodes to Clinicians

The second component of a cost measure is attribution: the assignment of responsibility for episode costs.

2.2.1 Description of this Component

Episodes are attributed to a clinician based on the trigger event, and an attributed clinician is held responsible for the assigned costs of care during the episode. The episode defines the period during which a clinician or clinician group can be held responsible for associated patient costs. Information from claims (i.e., services billed on the claim) are used to identify the clinician being considered for attribution.

Future attribution rules may also benefit from the implementation of patient relationship categories and codes. In April 2016, CMS posted a draft list of patient relationship categories for public comment, followed by the posting of a modified list for comment in December 2016 and an operational list in May 2017.[20] A patient relationship categories and codes FAQ document is also publicly available.[21] Beginning January 1, 2018, clinicians may voluntarily report their patient relationships on claims. As required by section 101(f) of MACRA, CMS will consider how to incorporate the patient relationship categories into episode-based cost measurement methodology as clinicians and billing experts gain experience with them. During the voluntary reporting period, CMS will collect data on the use and submission of the patient relationship codes for validity and reliability testing before considering their potential future use in the attribution methodology for MIPS cost measures. Patient relationship categories and codes were not used during the development of these measures but may be used in conjunction with other claims-based attribution rules in the future.

As part of the current field testing period, data on the patient relationship codes that were reported on the trigger claim are available in the .CSV file accompanying the Field Test Report. The goal of this data is to provide clinicians with an idea of how the patient relationship codes can align with the attribution methodology of the episode-based cost measures.

2.2.2 Process for Developing for this Component

As a part of defining the episode group (Section 2.1 above), the Clinical Subcommittee considered the scope of the episode group and provided input on the types of clinicians who should be on the Clinician Expert Workgroup to reflect those who would be attributed the selected episode group. Workgroup members were also encouraged to consider which

[20] CMS, "Patient Relationship Categories and Codes," MACRA Feedback Page, https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/CMS-Patient-Relationship-Categories-and-Codes.pdf

[21] CMS, "MACRA Patient Relationship Categories and Codes: Frequently Asked Questions (FAQ)," MACRA Feedback Page, https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Patient-Relationship-Categories-and-Codes-webinar-faq.pdf

clinician(s) would likely be responsible for the costs and care during the episode when considering which episode trigger codes to select, given the types of clinicians who bill those codes.

The method of attribution is as follows:

- For procedural episode groups, the attributed clinician is the clinician billing the Part B Physician/Supplier claims for the service(s) provided during the trigger event.
- For acute inpatient medical condition episode groups like **Psychoses/Related Conditions**, an episode is attributed (i) to a clinician group (identified by Taxpayer Identification Number, or TIN) if the TIN billed at least 30% of the inpatient evaluation and management (E&M) codes on identified Part B Physician/Supplier claim lines during the trigger inpatient stay, and (ii) to a clinician (identified by a unique TIN and National Provider Identifier pair, or TIN-NPI) within an attributed TIN if the TIN-NPI billed at least one of the inpatient E&M codes on identified Part B Physician/Supplier claim lines during the trigger inpatient stay.
- For chronic condition episode groups like **Heart Failure**, **Low Back Pain**, and **Major Depressive Disorder**, an episode is attributed to the TIN(s) who bill a pair of trigger services: (i) a trigger code, which is a code from a set of Current Procedural Terminology / Healthcare Common Procedure Coding System (CPT/HCPCS) codes for clinically relevant outpatient services when accompanied by a relevant diagnosis, followed by (ii) a confirming code.[22] An episode is attributed to a TIN-NPI within an attributed TIN if that TIN-NPI bills at least 30% of the trigger/confirming services with a relevant diagnosis on the Part B Physician/Supplier claim lines during the episode.
- For the **Emergency Medicine** episode group, the attributed clinician is the clinician billing the trigger E&M codes indicating an emergency department visit.

Each workgroup also discussed the attribution algorithms to evaluate whether adjustments would be appropriate given the nature of care for the particular condition. For example, the base chronic condition framework includes additional checks to ensure that clinicians are only attributed after they have had their first encounter with the patient, and that the appropriate specialties are attributed based on prescription billing patterns. However, some clinicians who are closely involved with patient care around Low Back Pain and Major Depressive Disorder may not have the ability to prescribe medications; as a result, modifications to the standard attribution requirements were considered for these measures. For a detailed discussion of the attribution method for each measure, please see the Draft Cost Measure Methodology documents available on the MACRA Feedback Page at the start of field testing.

2.3 Assignment of Costs to the Episode Group

This section describes the third component of episode-based cost measures: the assignment of costs (i.e., assignment of services) to the episode group.

2.3.1 Description of this Component

Services, and their respective Medicare costs, are assigned to an episode only when clinically related to the attributed clinician's role in managing patient care during an episode. Assigned services might include diagnostic services, treatment services, ancillary items, and services

[22] Depending on the particular measure, a confirming code is (a) any code from the same set of trigger CPT/HCPCS codes with a relevant diagnosis, or (b) any code from the same set of trigger CPT/HCPCS codes with a relevant diagnosis, or a code from an additional set of clinically relevant CPT/HCPCS with a relevant diagnosis.

directly related to treatment, and services following the initial treatment period that may be rendered to patients as follow-up care. Services furnished as a consequence of care, such as complications, readmissions, unplanned care, and emergency department visits may also be included. Unrelated services are not assigned to the episode, such as the cost of care for a chronic condition that occurs in the episode window for a procedure or acute inpatient medical condition but that is not related to the clinical management of the patient relative to the procedure or acute condition.

2.3.2 Process for Developing this Component

To inform the specifications for the assignment of costs of services, workgroup members completed an online survey providing preliminary input on the types of services to assign to the measure. This was used as a starting point for initial discussions on service assignment. Ahead of the August/September 2021 webinar, Acumen provided members with an analysis on the use and timing of the most frequently provided services for the episode group. During the meeting, Acumen sought further input on service assignment topics and gathered workgroup member recommendations via a post-webinar poll. Acumen clinical and technical teams reviewed workgroup member input to create the draft service assignment rules for the episode group.

The draft service assignment rules were used to determine episode costs for the Field Test Reports. After field testing, workgroups will have the opportunity to refine their recommendations on service assignment rules and provide updated input after considering stakeholder feedback. Acumen clinicians will use this refined input to finalize the service assignment rules for the episode group. As a part of measure maintenance, service assignment rules will be revisited in the future to ensure the codes for assigned services are up-to-date and remain clinically relevant.

2.4 Risk Adjustment

This section describes the fourth component of episode-based cost measures: risk adjustment.

2.4.1 Description of this Component

Risk adjustment facilitates a more accurate comparison of cost across clinicians by adjusting for clinical factors that can influence spending, such as a patient's age and comorbidities. Risk adjustment aims to isolate the variation in clinicians' costs to Medicare to those costs that clinicians can reasonably influence. Accounting for these factors is one way to ensure the validity of cost measures and mitigate potential unintended consequences.

Similarly, certain patients or episodes with particular clinical characteristics may be excluded from episode-based cost measure calculation altogether. Exclusions remove unique groups of patients from cost measure calculation in cases where it may be impractical and unfair to compare the costs of caring for these patients to the costs of caring for the cohort at large. Exclusions, like risk adjustment, help improve the validity of the cost measure by removing sources of variation outside of clinician influence and prevent unintended consequences of measuring clinician cost performance when treating unique patient populations.

2.4.2 Process for Developing this Component

Acumen received broad feedback on risk adjustment used in episode-based cost measure calculation during the August 2017 TEP meeting. Acumen solicited TEP feedback on the proposed approach and materials used to gather workgroup input on risk adjustment and incorporated that feedback into the materials provided to the workgroup. Other

recommendations gathered during the risk adjustment TEP will be evaluated by CMS and considered in future waves of episode-based cost measure development.

During the workgroup webinar in June 2021, members were provided an analysis of Medicare claims specific to the measure to help identify sub-populations of patients with certain services and diagnoses occurring in a specified time period that may predict high episode costs. In that meeting, workgroup members discussed and provided initial input on how to account for patient sub-populations to create clinically homogenous groups of patients to allow for accurate comparisons of clinician performance (see Section 2.1.2). Acumen clinical and technical teams used the input gathered through polls during the webinar meeting to create an initial set of risk adjustment variables. At the subsequent August/September webinar, based on their review of updated analysis results and their clinical experience and expertise, workgroup members shared their recommendations on the risk adjustment, sub-group, and exclusion specifications. They also suggested whether any of the sub-populations needed further consideration or information; these were designated to be monitored and potentially revisited after field testing. The workgroup will have the opportunity to further refine the specifications after considering stakeholder feedback collected during field testing.

2.5 Alignment of Cost with Quality

This section describes the fifth and final component of episode-based cost measures: the alignment of cost with quality.

2.5.1 Description of this Component

This component involves the consideration of how to align cost measure performance with quality measures. Such quality measures include outcomes, processes of care, and patient engagement and experience. These quality measures need to be considered along with cost measures to ensure that clinicians throughout a patient's care trajectory are incentivized to provide high-value, patient-centered care, with the goal of mitigating potential unintended consequences. For instance, pairing cost measure performance with quality measures that share similar characteristics would allow for patient outcomes such as functional status and mortality to be interpreted alongside with cost. This component is particularly salient given the introduction of MIPS Value Pathways (MVPs), a participation framework for MIPS meant to align and connect measures and activities across the 4 performance categories in MIPS. The transition to MVPs will begin in the 2023 MIPS performance year.

2.5.2 Process for Developing this Component

To assist with the approach for aligning cost and quality, Acumen asked stakeholders during the Wave 4 public comment period to provide input on alignment of each of the proposed cost measures with existing quality measures. These comments, coupled with input provided by Acumen's clinician team, provided a baseline of quality measures for consideration. Clinician Expert Workgroup members were provided information on these quality measures for discussion during the June 2021 webinar meetings. Following field testing, the workgroups will have the opportunity to review stakeholder feedback on the measures through the lens of quality alignment and suggest relevant refinements to the measure specifications.

Appendix A: Technical Expert Panel Members

Technical Expert Panel Members (2016-2018)
Adolph Yates, American Academy of Orthopaedic Surgeons
Alan Lazaroff, American Geriatrics Society
Allison Madson, American Society of Cataract and Refractive Surgery
Alvia Siddiqi, American Academy of Family Physicians
Anupam Jena, Harvard Medical School
Caroll Koscheski, American College of Gastroenterology
Chandy Ellimoottil, American Urological Association
Diane Padden, American Association of Nurse Practitioners
Dyane Tower, American Podiatric Medical Association
Edison A. Machado, Jr., The American Health Quality Association
Jackson Williams, Dialysis Patient Citizens
James Naessens, Mayo Clinic
John Bulger, American Osteopathic Association
Juan Quintana, American Association of Nurse Anesthetists
Kata Kertesz, Center for Medicare Advocacy
Kathleen Blake, American Medical Association
Mary Fran Tracy, National Association of Clinical Nurse Specialists
Parag Parekh, American Society of Cataract and Refractive Surgery
Patrick Coll, University of Connecticut Health Center
Shelly Nash, Adventist Health System
Sophie Shen, Johnson and Johnson Health Care Systems, Inc.

Technical Expert Panel Members (2020-present)
Adolph Yates, American Association of Hip and Knee Surgeons
Akinluwa Demehin, American Hospital Association
Alan Lazaroff, American Geriatrics Society
Anita Bemis-Dougherty, American Physical Therapy Association
Caroll Koscheski, American College of Gastroenterology
Danny van Leeuwen, Society for Participatory Medicine
David Seidenwurm, American College of Radiology
Diane Padden, American Association of Nurse Practitioners
Edison Machado, Jr., The American Health Quality Association
James Naessens, Mayo Clinic
Janice Tufte, Society for Participatory Medicine
Kathleen Blake, American Medical Association
Kurtis Hoppe, American Academy of Physical Medicine and Rehabilitation
Mary Fran Tracy, National Association of Clinical Nurse Specialists
Michael Wasserman, California Association of Long Term Care Medicine
Parag Parekh, American Society of Cataract and Refractive Surgery
Robert Leviton, American Medical Informatics Association
Shelly Nash, Adventist Health System
Shirley Levenson, American Academy of Nurse Practitioners
Ugochukwu Uwaoma, American College of Physicians

Appendix B: Clinician Expert Workgroup Members

Tables B-1 through B-5 list the members of each Clinician Expert Workgroup along with their specialty, city, and state. Clinician Expert Workgroup chairs are denoted with an asterisks (*).[23]

Table B-1. Composition of the Emergency Medicine Clinician Expert Workgroup

Name and Credentials	Specialty	City, State
Brandon Lewis, DO, MBA, FACOEP, FACEP	Emergency Medicine	College Station, TX
Carleen Jogodka, PT, DPT, OCS, FAAOMPT	Physical Therapist	Tucson, AR
Carolyn Fruci, MD	Critical Care	Fall River, MA
Dipali Ruby Sahoo, DO, MBA, FACP, SFHM	Internal Medicine	Austin, TX
John Lam, MD, MBA	Urology	Los Angeles, CA
Joshua Liao, MD, MSc	Internal Medicine	Seattle, WA
Michelle Lin, MD, MPH, MS, FACEP	Emergency Medicine	New York, NY
Mustafa Mark Hamed, MD, MBA, MPH	Family Medicine	Novi, MI
Nabil Khoury, MD	Emergency Medicine	Bloomfield, MI
Nathan Ruch, MD	Emergency Medicine	New Hope, PA
Nicholas Mohr, MD, MS	Emergency Medicine	Iowa City, IA
Patricia Bartzak, DNP, RN, CMSRN, TCRN	Internal Medicine	Natick, MA
Paula Tucker, DNP, FNP-BC, ENP-C, FAANP	Emergency Medicine	Snellville, GA
Rajeev Suri, MD, MBA	Diagnostic Radiology	San Antonio, TX
Sarah Eakin, MD	Pathology	Erie, PA
Stephen Epstein, MD, MPP, FACEP	Emergency Medicine	Boston, MA
Susan Nedza, MD, MBA*	Emergency Medicine	Chicago, IL
Tyler Hill, DO, FACEP	Emergency Medicine	Williamstown, WV

Table B-2. Composition of the Heart Failure Clinician Expert Workgroup

Name and Credentials	Clinical Specialty	City, State
Charles Rhee, MD	Hospice and Palliative Care	Chicago, IL
Connie Lewis, MSN, ACNP-BC, NP-C, CCRN, CHFN, FHSA	Nurse Practitioner	Franklin, TN
Cynthia Cox, APRN, MS, MBA, NP-C, ACNS-BC	Cardiology	Atlanta, GA
Dirk Steinert, MD, MBA	Internal Medicine	Milwaukee, WI
Donnie Batie, MD, FAAFP	Family Medicine	Baton Rouge, LA
Eric Velazquez, MD	Cardiology	New Haven, CT
James Blankenship, MD, MHCM	Interventional Cardiology	Albuquerque, NM
Jennifer Cowart, MD	Internal Medicine	Jacksonville, FL
Karen Ream, PAC, MBA	Physician Assistant	Aurora, CO
Khadijah Breathett, MD, MS, FACC, FAHA, FHFSA	Cardiology	Tucson, AZ
Konrad Dias, PT, DPT, PhD	Physical Therapist	Ballwin, MO
Margaret "Midge" Bowers, DNP, FNP-BC	Cardiology	Durham, NC
Maria Rosa Costanzo, MD	Internal Medicine	Naperville, IL

[23] Chairs facilitated discussions and assisted in reaching consensus on cost measure development recommendations during workgroup webinars and activities.

Name and Credentials	Clinical Specialty	City, State
Marvin Konstam, MD	Cardiology	Boston, MA
Namirah Jamshed, MD	Geriatric Medicine	Dallas, TX
Nihar Desai, MD, MPH	Cardiology	New Haven, CT
Paul Heidenreich, MD*	Cardiology	Palo Alto, CA
Peter Rahko, MD	Cardiology	Madison, WI
Sanjay Samy, MD	Cardiac Surgery	Albany, NY
William Van Decker, MD	Cardiology	Philadelphia, PA

Table B-3. Composition of the Low Back Pain Clinician Expert Workgroup

Name and Credentials	Clinical Specialty	City, State
Alice Bell, PT, DPT	Physical Therapist	Alexandria, VA
Andrew Gordon, MD, PhD, FAAPMR	Physical Medicine and Rehabilitation	Vienna, VA
Carlo Milani, MD, MBA	Physical Medicine and Rehabilitation	New York, NY
David Seidenwurm, MD	Diagnostic Radiology	Sacramento, CA
Dheeraj Mahajan, MD, MBA, MPH, FACP*	Internal Medicine	Oak Park, IL
Erica Bisson, MD, MPH	Neurosurgery	Salt Lake City, UT
Helene Fearon, BS	Physical Therapist	Phoenix, AZ
Jay Nathan, MD	Neurosurgery	Stanford, CA
John Heick, PT, DPT, PhD	Physical Therapist	Flagstaff, AZ
Kristian Anderson, DC, MS	Chiropractic	Grand Forks, ND
Leo Bronston, DCMAppSC	Chiropractic	Onalaska, WI
Luis Rodriguez, MD, FAMSSM	Internal Medicine	Miami, FL
Marcus Nynas, DC	Chiropractic	Billings, MT
Matthew Smith, MD, MHL	Physical Medicine and Rehabilitation	East Greenwich, RI
Michael Harned, MD	Interventional Pain Management	Lexington, KY
Michael Zychowicz, DNP, ANP, ONP, FAAN, FAANP	Nurse Practitioner	Hillsborough, NC
Mohamad Bydon, MD	Neurosurgery	Rochester, MN
Richard Young, MD	Family Medicine	Fort Worth, TX
Robert Kropp, MD, MBA, CPHI, FAAN	Neurology	St. Petersburg, FL
Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CT, QCP, FAOTA	Occupational Therapist	Napa, CA
Shraddha Jatwani, MD, FACP, FACR, RhMSUS	Rheumatology	Philadelphia, PA

Table B-4. Composition of the Major Depressive Disorder Clinician Expert Workgroup

Name and Credentials	Clinical Specialty	City, State
Barbara Spivak, MD	Internal Medicine	Brighton, MA
Becky Fenton, PsyD	Psychiatry	New York City, NY
Carolyn Dueñas, MBA, RN, RNC-OB	Obstetrics & Gynecology	Los Angeles, CA
David Kroll, MD	Psychiatry	Boston, MA
Gerard Hogan, DNSc, CRNA, ARNP-BC	Certified Registered Nurse Anesthetist	Panama City, FL
James Gajewski, MD	Internal Medicine	Modesto, CA
Jamieson Wilcox, OTD, OTR/L	Occupational Therapist	Los Angeles, CA
Kate Lichtenberg, DO, MPH, FAAFP, FACPM	Family Medicine	Kirkwood, MO
Luisa Collins, MSN, FNP-C, APRN, ABAAHP, CPHIMS	Psychiatry	Dallas, TX
Megan Adamson, MD, MHS-CL, FAAFP	Family Medicine	Lafayette, CO
Naakesh Dewan, MD*	Psychiatry	Tampa, FL

Name and Credentials	Clinical Specialty	City, State
Robert Roca, MD	Psychiatry	Baltimore, MD
Terry Lee Mills, MD, MMM, CPE, FAAFP	Family Medicine	Tulsa, OK
Vaile Wright, PhD	Clinical Psychology	Washington, DC

Table B-5. Composition of the Psychoses/Related Conditions Clinician Expert Workgroup

Name and Credentials	Clinical Specialty	City, State
Allan Anderson, MD	Psychiatry	Cambridge, MD
Ann Hackman, MD	Psychiatry	Baltimore, MD
Bonnie Zima, MD, MPH	Psychiatry	Los Angeles, CA
Cynthia Peacock, MD	Internal Medicine	Houston, TX
David Folsom, MD, MPH	Psychiatry	La Jolla, CA
David Kroll, MD	Psychiatry	Boston, MA
Jennifer Cowart, MD	Internal Medicine	Jacksonville, FL
John Cook, MD	Internal Medicine	Leesburg, VA
Joshua Hirsch, MD	Diagnostic Radiology	Boston, MA
Kathleen McCoy, DNSc, APRN, PMHNP-BC, FNP-BC, PMHCNS-BC, FAANP	Nurse Practitioner	McMinnville, TN
Marc Raphaelson, MD, FAAN, FAASM	Neurology	Upperville, VA
Melinda Lantz, MD	Psychiatry	New York, NY
Michael Flaum, MD	Psychiatry	Iowa City, IA
Michael Malone, MD	Geriatric Medicine	Milwaukee, WI
Naakesh Dewan, MD*	Psychiatry	Palm Harbor, FL
Nicholas Breitborde, PhD	Clinical Psychology	Columbus, OH
Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CT	Occupational Therapy	Napa, CA
Vaile Wright, PhD	Clinical Psychology	Washington, DC