

## 2026 Episode-Based Cost Measures Field Testing

### Wave 6 and Wave 7 Measure Development

#### Process

Winter 2026 Field Testing

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# 1.0 Introduction

This document provides the project background and details of the process for developing the 3 episode-based cost measures being field tested from January 29 to February 27, 2026.

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 interested members of the public 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](#)<sup>1</sup> 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 [CMS.gov QPP Cost Measure Information Current Work page](#).<sup>2</sup>
- Collect feedback on the draft specifications for each measure via online survey:
  - [2026 Cost Measures Field Testing Feedback Survey](#)<sup>3</sup> for most feedback, including input on the measures, their draft specifications, the Field Test Reports, and other field testing materials
  - [Person and Family Engagement \(PFE\) Field Testing Survey](#)<sup>4</sup> for people with lived experience, as a patient or a caregiver, with the conditions represented in the measures undergoing field testing

We're collecting feedback from **January 29 to February 27, 2026**.  
To provide feedback on the draft measure specifications, please navigate to the [2026 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.

<sup>1</sup> CMS, "Quality Payment Program Account," Quality Payment Program, <https://qpp.cms.gov/login>

<sup>2</sup> CMS, "Wave 6 and Wave 7 cost measures field testing", CMS.gov QPP Cost Measure Information Current Work page, <https://www.cms.gov/medicare/quality/value-based-programs/cost-measures/current>

<sup>3</sup> The general field testing online survey will open beginning January 29, 2026, at this link:  
[https://acumen.qualtrics.com/ife/form/SV\\_bydizySYqslUifs](https://acumen.qualtrics.com/ife/form/SV_bydizySYqslUifs)

<sup>4</sup> The person and family field testing online survey will open beginning January 29, 2026, at this link:  
[https://acumen.qualtrics.com/ife/form/SV\\_cGg6Zd5WPWWdn6e](https://acumen.qualtrics.com/ife/form/SV_cGg6Zd5WPWWdn6e)

## 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 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 sources, 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,<sup>5</sup> and some measures also include data from Medicare Part D.<sup>6</sup>

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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<sup>5</sup> 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>).

<sup>6</sup> 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 CMS.gov QPP Cost Measure Information “About” page (<https://www.cms.gov/medicare/quality/value-based-programs/cost-measures/current>).

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. **The Breast Cancer Screening (br\_ca\_scrn) measure being field tested in 2026 is based on a procedural episode group framework.**
- 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.
- Chronic condition episode groups account for the ongoing management of a disease or condition. **The following measures being field tested in 2026 are based on a chronic condition episode group framework:**
  - **Parkinsonism Syndromes and Multiple Sclerosis (MS) (par\_ms)**
  - **Non-Pressure Ulcers (npr\_ulcers)**
- The Emergency Medicine measure, developed during Wave 4 of development, is centered on a setting of care rather than a unique condition or procedure, and focuses on the care provided by clinicians in the emergency department.

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 [Current Work page](#) of the [CMS.gov Cost Measure Information pages](#) at the start of field testing.

The measures being field tested in 2026 are based on either chronic condition episode groups or procedural episode groups, depending on the specific cost measure. Therefore, this document primarily focuses on the measure components and measure development process for chronic condition and procedural episode groups. Similar information for other types of episode groups is available in the development process documents from previous years of field testing, available on the [CMS.gov QPP Cost Measure Information Prior Work page](#).

### 1.3 Process for Developing the Cost Measures

Input from clinical experts and other interested members of the public 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 interested parties to inform the development of the cost measures. Acumen incorporates input from the following input activities:

- (i) Technical Expert Panel (TEP)
- (ii) 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 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 interested parties another opportunity to provide input on the cost measurement approach. The remaining sub-sections of this section describe each 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 public calls for nominations in 2016, 2019, and 2024. The current standing TEP has 23 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 15 TEP meetings (in August 2016, December 2016, March 2017, August 2017, May 2018, November 2018, December 2018, February 2020, July 2021, 2 in August 2022, September 2023, March 2024, December 2024, and August 2025). 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 Clinician Expert Workgroups**

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

#### **Input on Measure Conceptualization and Prioritization**

In Wave 4, Acumen began obtaining input on candidate episode groups through a public comment period instead of convening Clinical Subcommittees (CS), which were large groups of clinicians focused in a particular clinical area that recommended episode groups for cost measure development and provided initial input on specifications. This approach addressed previous feedback expressing interest in more flexible participation options for specialty societies, professional associations, and clinicians. To inform measure selection for Wave 6 and Wave 7, Acumen reviewed comments received during prior-wave public comment periods and considered CMS priority areas for development. The approach for gathering input on cost measure conceptualization and prioritization may be revisited for future waves of development.

#### **Expert Panel Input on Measure Specification**

Acumen 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 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.

Each Wave 6 Clinician Expert Workgroup initially met via a webinar in June 2023 to discuss initial measure specifications for all components of the measure, with a focus on measure scope, framework, and triggering,<sup>7</sup> followed by a webinars in October 2023 for detailed

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<sup>7</sup> CMS, “Summary of Wave 6 Workgroup Meetings,” CMS.gov QPP Cost Measure Information Current Work page, <https://www.cms.gov/files/zip/summary-wave-6-workgroup-meetings-zip.zip>

discussions on service assignment, risk adjustment, and other refinements.<sup>8</sup> After 2024 field testing, the workgroups revisited and refined the measure specifications based on testing results and in consideration of the feedback received during field testing during March 2024 webinars.<sup>9</sup> Following the 2024 Measures Under Consideration (MUC) List and Pre-Rulemaking Measure Review process, CMS continued development efforts for the Wave 6 measures prior to considering implementing the measures for use in MIPS. The Clinician Expert Workgroups were convened again to continue development in July and September/October 2025, where members have considered updates to the measure specifications. Additionally, Wave 7 Clinician Expert Workgroups for the Breast Cancer Screening measure were convened in July and October 2025 in tandem with the continued Wave 6 development. All 3 episode-based cost measures will be field tested in early 2026. The workgroups reconvene in Spring 2026 to revisit and refine the measure specifications based on testing results and feedback received during 2026 field testing.

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 costs of which services should be evaluated 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 3 measures undergoing field testing in 2026 represent a total of 51 members affiliated with 47 professional societies, as listed in Table 1 below.

**Table 1. Information on the Clinician Expert Workgroups with Measures in 2026 Field Testing**

Measure-Specific Clinician Expert Workgroup	# Workgroup Members	# Affiliated Specialty Societies
Parkinsonism Syndromes and Multiple Sclerosis (MS)	15	18
Non-Pressure Ulcers	19	21
Breast Cancer Screening	19	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.

<sup>8</sup> CMS, "Summary of Wave 6 Service Assignment and Refinement (SAR) Workgroup Meetings," CMS.gov QPP Cost Measure Information Current Work page, <https://www.cms.gov/files/zip/summary-wave-6-service-assignment-and-refinement-sar-workgroup-meetings.zip>

<sup>9</sup> CMS, "Summary of Wave 6 Post-Field Test Refinement (PFTR) Workgroup Meetings," CMS.gov QPP Cost Measure Information Current Work page, <https://www.cms.gov/files/zip/summary-wave-6-post-field-test-refinement-pftr-workgroup-meetings-zip.zip>

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 standing TEP includes 2 patients who provide high-level guidance on topics, such as measure conceptualization and prioritization. The Clinician Expert Workgroups also include approximately 15 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 Waves 6 and 7, PFPs for each episode group participated in focus groups, interviews, or surveys to provide 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. For example, 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 CMS.gov QPP Cost Measure Information Prior Work page.<sup>10</sup>

#### **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.

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<sup>10</sup> CMS, "Summary of Person and Family Engagement (PFE) and Input", CMS.gov QPP Cost Measure Information Prior Work page, <https://www.cms.gov/files/document/summary-person-and-family-engagement.pdf>

The field testing feedback summary reports for prior episode-based cost measure field testing periods from Waves 1, 2, 3, 4, 5, and 6 are available on the [CMS.gov QPP Cost Measure Information Prior Work page](#).<sup>11,12,13,14,15,16,17</sup>

In 2025, CMS decided to continue development efforts for the Wave 6 measures prior to considering implementing the measures for use in MIPS. This field testing period includes the updated 2 Wave 6 measures and 1 Wave 7 measure and is taking place from January 29 to February 27, 2026. 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 interested members of the public, regardless of whether they have received a Field Test Report, are encouraged to review the Frequently Asked Questions (FAQ) document, Measure Testing Forms and At-A-Glance documents containing testing results, and the draft measure specifications, and submit their feedback through the [online field testing feedback survey](#).<sup>18</sup> A document containing the specific questions about the measures for reference while reviewing the materials is available on the [Current Work page](#) of the [CMS.gov QPP Cost Measure Information pages](#).

CMS and Acumen conduct a range of education and outreach activities to inform the public about field testing. In addition to the publicly posted materials described above, CMS and Acumen host information sessions to engage with interested parties. CMS and Acumen plan to publicly post a national field testing webinar recording that provides details regarding the field testing process and draft measure specifications for measures undergoing field testing. Acumen also holds specialty society office hours during field testing for specialty societies and professional organizations 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 between Acumen and societies to improve understanding.

For 2026 field testing, Acumen is continuing the expanded education and outreach efforts introduced during recent field testing periods in order to increase engagement, including enhancements to Field Test Reports and further guidance on reviewing reports, such as a

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<sup>11</sup> 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>

<sup>12</sup> "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>

<sup>13</sup> 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.

<sup>14</sup> "2020 Field Testing Feedback Summary Report for 5 Episode-Based Cost Measures," Quality Payment Program (December 2020), <https://www.cms.gov/files/document/macra-2020-ft-feedback-summary-report.pdf>

<sup>15</sup> "2022 Field Testing Feedback Summary Report for 5 Episode-Based Cost Measures," Quality Payment Program (May 2022), <https://www.cms.gov/files/document/field-testing-feedback-summary-report.pdf>

<sup>16</sup> "2023 Field Testing Feedback Summary Report for 5 Episode-Based Cost Measures," Quality Payment Program (May 2023), <https://www.cms.gov/files/document/field-testing-feedback-summary-report-23-wave-5.pdf>

<sup>17</sup> "2024 Field Testing Feedback Summary Report for 2 Episode-Based Cost Measures," Quality Payment Program (June 2024), <https://www.cms.gov/files/document/2024-field-testing-feedback-summary-report.pdf>

<sup>18</sup> Comments and feedback can be submitted through this online field testing feedback survey:  
[https://acumen.qualtrics.com/jfe/form/SV\\_bydizySYgslUifs](https://acumen.qualtrics.com/jfe/form/SV_bydizySYgslUifs)

recorded walkthrough of a mock Field Test Report, and providing measure-specific At-A-Glance documents for easy reference of important measure information and specifications in plain language.

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 [CMS.gov QPP Cost Measure Information pages](#).

## 2.0 Components of Episode-Based Cost Measures

The measure development approach incorporates extensive 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 [CMS.gov QPP Cost Measure Information Current Work 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

The Wave 6 and 7 Clinician Expert Workgroups provided detailed input on the scope and the trigger codes of the episode group. Acumen ran initial analyses on potential trigger codes. Workgroup members discussed these potential trigger codes and recommended refinements. Workgroup members also discussed the measure framework and triggering algorithms and considered potential adjustments specific to each measure. Workgroup members voted in a post-webinar poll that informed CMS and Acumen decision-making for all three measures.

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 following methods 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 the 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. 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**

In considering attribution rules, workgroup members were encouraged to consider which 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.

For chronic condition episode groups, the method of attribution is as follows:

- Clinician groups, identified by Taxpayer Identification Number, or TIN: 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.
- Clinicians, identified by a unique TIN and National Provider Identifier pair, or TIN-NPI: 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 procedural episode groups, the method of attribution is as follows:

- Clinicians, identified by a unique TIN and National Provider Identifier pair, or TIN-NPI: An episode is attributed to the TIN-NPI(s) who bill a trigger code from the set of CPT/HCPCS codes for the clinically relevant procedure(s) on the trigger day and no exclusion modifier code is found on the same claim line. TIN-NPIs designated as main or assistant clinician can be attributed an episode.
- Clinician groups, identified by Taxpayer Identification Number, or TIN: An episode is attributed to a TIN by aggregating all episodes attributed to NPIs that bill to that TIN. If the same episode is attributed to more than one NPI within a TIN, the episode is attributed only once to that TIN.

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 requires that an episode is only attributed to a clinician if the clinician saw the patient within the year prior to the start of the episode, ensuring clinicians are only attributed after they have had their first encounter with the patient. For a detailed discussion of the attribution method for each measure, please see the Draft Cost Measure Methodology documents available on the [CMS.gov QPP Cost Measures Information Current Work page](#) at the start of field testing. The workgroup will have the opportunity to further refine the specifications after considering feedback collected during 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 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 procedure that occurs in the episode window for a chronic condition but that is not related to the clinical management of the patient's chronic condition.

### **2.3.2 Process for Developing this Component**

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 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 may 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 Wave 6 and 7 workgroup webinars, 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 refine the previous set of risk adjustment variables or create an initial set. At the subsequent September and October webinars, based on their review of updated analysis results and their clinical 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 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 began in the 2023 MIPS performance year, and the future of MIPS will center MVPs as they become the MIPS participation option as [CMS sunsets Traditional MIPS](#).<sup>19</sup>

### **2.5.2 Process for Developing this Component**

To assist with the approach for aligning cost and quality, Acumen reviewed comments from prior public comment periods, coupled with input provided by Acumen's clinician team, to provide a baseline of quality measures for consideration. Following field testing, the workgroups will have the opportunity to review feedback on the measures through the lens of quality alignment and suggest relevant refinements to the measure specifications.

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<sup>19</sup> CMS, "QPP Transition from Traditional MIPS to MVPs", Quality Payment Program: Ways to Report: MVPs, <https://qpp.cms.gov/reporting-requirements/ways-to-report/mvp>

# 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, Health Hats  
David Seidenwurm, American College of Radiology  
Diane Padden, American Association of Nurse Practitioners  
Edison Machado, Jr., The American Health Quality Association  
Gregory Wozniak, American Medical Association<sup>20</sup>  
James Naessens, Mayo Clinic  
Janice Tufte, Society for Participatory Medicine  
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, Fresenius Healthcare North America  
Shirley Levenson, American Academy of Nurse Practitioners  
Ugochukwu Uwaoma, Trinity Health of New England

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<sup>20</sup> Gregory Wozniak replaced previous member, Kathleen Blake, also associated with the American Medical Association, in July 2022.

**Technical Expert Panel Members (2024-present)**

Adolph Yates, American Association of Hip and Knee Surgeons  
Amy Aronsky, United Healthcare  
Barbara Kivowitz, Sutter Health  
Barbara Spivak, Massachusetts Medical Society  
Chloe Slocum, American Academy of Physical Medicine and Rehabilitation  
David Kroll, American Psychiatric Association  
David Seidenwurm, American College of Radiology  
Denise Morse, City of Hope National Medical Center  
Dheeraj Mahajan, Chicago Internal Medicine Practice and Research  
Gregory Wozniak, American Medical Association  
Jay Nathan, American Association of Neurological Surgeons  
Jayme Lieberman, Institute for Surgical Excellence  
Johnnie Sue Wijewardane, American Association of Nurse Practitioners  
Joy Gelbman, Weill Cornell Medicine  
Karie Nicholas, Foundation for Health Care Quality  
Kate Lichtenberg, Anthem Blue Cross and Blue Shield  
Kevin Klauer, Shepherd's Hope, LLC  
Robert Kropp, American Academy of Neurology  
Rosie Bartel  
Sabrena McCarley, American Occupational Therapy Association  
Sarah Eakin, Pathology Associates of Erie  
Stephen Epstein, American College of Emergency Physicians  
Ugochukwu Uwaoma, American College of Physicians

## Appendix B: Clinician Expert Workgroup Members

Tables B-1, B-2, and B-3 list the members of each Clinician Expert Workgroup along with their specialty. Clinician Expert Workgroup chairs are denoted with an asterisks (\*).<sup>21</sup>

**Table B-1. Composition of the Parkinsonism Syndromes and Multiple Sclerosis (MS) Clinician Expert Workgroup**

Name and Credentials	Specialty
Deena Hassaballa, DO, FAAPMR	Physical Medicine and Rehabilitation
Dheeraj Mahajan, MD, MBA, MPH, FACP, CIC, CMD, CHCQM	Internal Medicine
Kathleen McCoy, DNSc, PMHNP-BC, PMHCNS-BC, FNP-BC, FAANP	Psychiatry
Marisa McGinley, DO, MsC	Neurology
Kelsey Peterson, OTD, OTR/L, Neuro-IFRAH Certified	Occupational Therapist
Alexander Rae-Grant, MD, FRCPC, FAAN	Neurology
Miriam Rafferty, PT, DPT, PhD	Physical Therapist
Patricia Sheets, PT, DPT	Physical Therapist
David Schultz, MD	Family Medicine
Jason Schwalb, MD	Neurosurgery
David Seidenwurm, MD	Diagnostic Radiology
Binit Shah, MD	Neurology
*Chloe Slocum, MD, MPH	Physical Medicine and Rehabilitation
Laura Verdun, CCC-SLP	Speech Language Pathologist
Christine Williamitis, PhD, DNP, PMHNP, ACNP, FNP	Psychiatry

**Table B-2. Composition of the Non-Pressure Ulcers Clinician Expert Workgroup**

Name and Credentials	Specialty
Patricia Bartzak, DNP, RN, CMSRN, TCRN, CNRN	Critical Care
Drew Caplin, MD, FACR, FSIR	Interventional Radiology
Kara Couch, NP	Wound Care Specialist
Sarah Eakin, MD	Pathology
Caroline Fife, MD	Family Medicine
Emily Greenstein, APRN, CNP, CWON-AP, FACCWS	Wound, Ostomy, and Continence Nurse
Katherine Hall, MD	Family Medicine
*Caitlin Hicks, MD, MS	Vascular Surgery
Mark Iafrati, MD	Vascular Surgery
Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CTA, QCP, FAOTA	Occupational Therapist
Christopher Pittman, MD, FAVLS, FACR	Interventional Radiology
Howard Rogers, MD, PhD	Dermatology

<sup>21</sup> Chairs facilitated discussions and assisted in reaching consensus on cost measure development recommendations during workgroup webinars and activities.

Name and Credentials	Specialty
David Freedman, DPM, FACFAS, FASPS, CPC, CSFAC, CPMA	Podiatry
Aamir Siddiqui, MD	Plastic and Reconstructive Surgery
Barbara Spivak, MD	Internal Medicine
*Dyane Tower, DPM, MPH, MS, CAE	Podiatry
Marta Van Beek, MD, MPH	Dermatology
Stephanie Woelfel, PT, DPT, CWS	Physical Therapist
Stephanie Yates, MSN, RN, ANP-BC, CWOCN	Wound, Ostomy, and Continence Nurse

**Table B-3. Composition of the Breast Cancer Screening Clinician Expert Workgroup**

Name and Credentials	Specialty
*David Seidenwurm, MD	Diagnostic Radiology
Laurie Margolies, MD, FACR, FSBI	Diagnostic Radiology
Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CTA, QCP, FAOTA	Occupational Therapist
Sarah Eakin, MD	Pathology
Richa Jain, MBBS	Pathology
Gregory Harris, DO	Hematology-Oncology
Cindy Lee, MD, FACMQ, FSBI	Diagnostic Radiology
Shaunta Ford-Pierce, FNP-BC	Medical Oncology
Beth Careyva, MD, MHSA, FAAFP	Family Medicine
Stamatia Destounis, MD, FACR, FSBI, FAIUM	Diagnostic Radiology
Megha Joshi, MD	Pathology
Mara Schonberg, MD, MPH	Internal Medicine
Brittany Strelow, DMSC, PA-C, MS	Internal Medicine
Katherine Lichtenberg, DO, MPH, FAAFP, FACPM	Family Medicine
Lauren Kopicky, DO, FACS, FACOS, FSSO	General Surgery
Sharon Hibay, DNP, RN	Nurse Practitioner
Shagufta Yasmeen, MD/MBBS	Internal Medicine
Myrlene Jeudy, MD	Obstetrics & Gynecology
Linda Moy, MD, FACR, FISMRRM, FSBI	Diagnostic Radiology