

Merit-based Incentive Payment System (MIPS): Cost Measure Field Test Reports Fact Sheet

The Quality Payment Program

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) established the Quality Payment Program.

Under the Quality Payment Program, clinicians are incentivized to provide high-quality and high value care through Advanced Alternative Payment Models (APMs) or the Merit-based Incentive Payment System (MIPS). MIPS eligible clinicians will receive a performance-based adjustment to their Medicare payments. This payment adjustment is based on a MIPS final score that assesses evidence-based and practice-specific data in the following categories:

1. Quality
2. Cost
3. Improvement activities
4. Promoting Interoperability (formerly Advancing Care Information)

The Quality Payment Program is currently in its second year (2018), and this is the first year that the MIPS cost performance category will have an impact on the MIPS final score. For the 2018 performance period, the cost performance category is weighted at 10 percent of the MIPS final score.

The Bipartisan Budget Act of 2018 provided flexibility in establishing the weight of the cost performance category through the fifth year of MIPS. Instead of requiring the cost performance category to have a weight of 30 percent in Year 3 of the program (as originally required in MACRA), the weight is required to be between 10 percent and 30 percent for the third, fourth, and fifth years of the Quality Payment Program. As outlined in the calendar year (CY) 2019 Medicare Physician Fee Schedule Proposed Rule, the Centers for Medicare & Medicaid Services (CMS) is proposing to weigh the cost performance category at 15 percent of the MIPS final score for the 2019 performance period, or Year 3 of the program. A weight will be finalized in the CY 2019 Physician Fee Schedule final rule.

Which cost measures will be field tested and how do they relate to the Quality Payment Program?

CMS is in the process of developing cost measures, and 13 cost measures will be field tested in October 2018. They can be divided into two groups:

- (i) Eleven new episode-based cost measures currently under development; and
- (ii) Two cost measures undergoing re-evaluation.



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CMS worked with measure development contractor Acumen, LLC (referred to as “Acumen”) to develop these cost measures. Under MACRA, MIPS involves the use of a methodology for analyzing cost, as appropriate, which includes consideration of patient condition groups and care episode groups (referred to as “episode groups”). As a result, 11 episode-based cost measures are currently under development and will be field tested before consideration of their potential use in MIPS.

The measure developer is developing these 11 measures with extensive input from 10 Clinical Subcommittees and 11 measure-specific workgroups, a technical expert panel (TEP), Person and Family Committee, and the public:

- Acute Kidney Injury Requiring New Inpatient Dialysis
- Elective Primary Hip Arthroplasty
- Femoral or Inguinal Hernia Repair
- Hemodialysis Access Creation
- Inpatient Chronic Obstructive Pulmonary Disease (COPD) Exacerbation
- Lower Gastrointestinal Hemorrhage
- Lumbar Spine Fusion for Degenerative Disease, 1-3 Levels
- Lumpectomy, Partial Mastectomy, Simple Mastectomy
- Non-Emergent Coronary Artery Bypass Graft (CABG)
- Psychoses/Related Conditions
- Renal or Ureteral Stone Surgical Treatment

The second set of measures that will be field tested include two cost measures undergoing re-evaluation, with input from a TEP, an expert workgroup, and public comment:

- Medicare Spending Per Beneficiary (MSPB) clinician¹
- Total Per Capita Cost (TPCC)²

¹ The re-evaluated MSPB clinician measure that is being field tested in October 2018 is separate from the reporting of the MIPS MSPB measure for the 2017 and 2018 MIPS performance periods. For clarity, we differentiate the MSPB measure currently in use in MIPS from the MSPB measure currently undergoing re-evaluation by name. “MSPB” alone refers to the measure currently in use and “MSPB clinician” refers to the measure currently undergoing re-evaluation.

² The re-evaluated TPCC measure that is being field tested in October 2018 is separate from the reporting of the existing TPCC measure for the 2017 and 2018 MIPS performance periods. The existing TPCC measure is sometimes referred to as “Total Per Capita Cost for All Attributed Beneficiaries.” For clarity in this document, we differentiate the TPCC measure currently in use in MIPS by referring to it as the “existing” or “current” MIPS TPCC measure.



The MSPB clinician and TPCC measures are based on measures that have previously been included in the Quality and Resource Use Reports (QRURs) provided to clinicians and measures that are currently used in the cost performance category of MIPS. The existing MIPS measures currently in use will be used to calculate the Year 2 cost performance category score and will impact the payment adjustment for MIPS eligible clinicians. The existing MIPS versions of these measures that are currently in use are separate from the two cost measures that are undergoing re-evaluation and that will be field tested this year, before consideration of their potential use in future years of MIPS.

Do the cost measures being field tested affect my 2018 or 2019 MIPS score?

No. The cost measures being field tested in October 2018 are not part of the MIPS cost performance category, and so do not count towards your MIPS final score. As such, the field testing cost measures do not affect any payment adjustments.

When will these cost measures be used in MIPS?

Possibly in the 2020 MIPS performance period or beyond. The 11 episode-based measures and the MSPB clinician and TPCC measures undergoing re-evaluation that will be field tested are **not** included in the 2018 or 2019 MIPS performance periods. These measures will be field tested before consideration of their potential use in the MIPS cost performance category in a future year. As part of this field testing, CMS and Acumen will seek stakeholder feedback on the draft measure specifications for the cost measures in their current stage of development, the field test report templates, and all accompanying supplemental documentation. This feedback will be considered in refining the measures and for future measure development activities.

CMS will consider stakeholder feedback, public comments, measure refinements, and Measure Applications Partnership recommendations before considering the potential use of these 11 episode-based cost measures and the cost measures undergoing re-evaluation in the MIPS cost performance category for a future year. This would involve proposing the measures for use in MIPS as part of the notice-and-comment rulemaking process.

Why are these cost measures being field tested now?

Through field testing, CMS and Acumen will seek voluntary feedback on the episode-based cost measures, the cost measures undergoing re-evaluation, and their measure reporting format. CMS will use this feedback to help decide whether these measures should be considered for potential use in the MIPS cost performance category, and how the measures and reporting format can be improved to provide clinicians with actionable information to ensure high quality and high value care. Field testing will also serve as an opportunity for clinicians to learn about and gain experience with these cost measures before they are considered for use in MIPS.

Specifically, we will seek feedback on the following types of questions:

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- Does the information presented on the measure in the field test report and accompanying documentation help you identify actionable improvements to patient care and to cost efficiency?
- Are the measure specifications for the eleven episode-based cost measures clinically valid? Measure specifications include episode triggers, attribution, assigned services, episode windows, and risk adjustment.
- Do the measure specifications of the re-evaluated MSPB clinician and TPCC measures represent refinements that are responsive to stakeholder feedback on the existing MIPS version of the measures? In particular, the key measure specifications of relevance here are the attribution methods for both measures and service assignment for the MSPB clinician measure.
- How can we present the information in such a way that it is most useful for meaningful improvement?
- How understandable is the measure documentation provided and how can it be improved?
- Would additional documents or information be useful for clinicians and other stakeholders trying to understand these measures?



Field Testing

What is field testing?

Field testing is a voluntary opportunity for clinicians and other stakeholders to provide feedback on the draft measure specifications for the cost measures, the field test report format, and the supplemental documentation. We will be field testing the 13 measures in their current stage of development and re-evaluation to seek clinician and other stakeholder feedback by:

- Posting clinician field test reports for group practices and solo practitioners who meet the minimum number of cases³ for each measure on the [CMS Enterprise Portal](#).
- Posting mock reports, draft measure specifications, and supplemental documentation on the [MACRA Feedback page](#).⁴

When is field testing taking place?

Field testing will last from October 3 until October 31, 2018. During this period, stakeholders may submit feedback on the measures, report templates, and other documentation.

Clinicians Receiving Field Test Report(s)

Field Test Reports will be available at the clinician group practice and solo practitioner (or clinician) level. Clinicians are identified by a unique Taxpayer Identification Number (TIN) and National Provider Identifier (NPI) combination (TIN-NPI), while clinician groups are identified by their TIN. For clinician group practices, the group practice must meet the minimum number of cases for the measure across all clinicians billing under the group practice TIN. For solo practitioners, the clinician must meet the minimum number of cases by him or herself.

Three types of field test reports will be provided to group practices and solo practitioners as shown in Table 1 below.

³ A case can be an episode or a beneficiary depending on the measure.

⁴ CMS, "Cost Measure Field Testing", *MACRA Feedback Page*, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>.



Table 1. Types of Field Test Reports

	Newly Developed Measures	Measures Undergoing Re-evaluation	
Field Test Report	Episode-Based Cost Measures	MSPB clinician	TPCC
What types of clinicians are likely to receive a Field Test Report?	Clinicians who perform the procedures (for procedural episode groups) or manage hospitalizations (for acute inpatient medical condition episode groups) for the 11 newly developed episode-based cost measures	Clinicians who are part of a TIN that admits patients to the hospital, and who for: <ul style="list-style-type: none"> • Medical Medicare Severity Diagnosis Related Groups (MS-DRGs), demonstrates management of a patient's condition by meeting or exceeding a particular threshold of evaluation and management (E&M) claims billed • Surgical MS-DRGs, bills the core procedure of the stay 	Clinicians who deliver primary care services to patients with a pattern indicative of a primary care relationship with a patient
How many cases does a clinician or clinician group need to receive a field test report?	10 episodes for at least one of the 11 episode-based cost measures	35 episodes	20 beneficiaries
What is the measurement period?	January 1, 2017 to December 31, 2017	January 1, 2017 to December 31, 2017	October 1, 2016 to September 30, 2017 ⁵
What is the format of the report?	One Excel file. If you meet the case minimum for more than one of the 11 episode-based cost measures, each measure will be on a separate tab in one report.	One PDF and one CSV file	One PDF and one CSV file

⁵ The attributable months between October 1, 2016 and September 30, 2017, inclusive, are included in the calculation of the TPCC measure. The year-long measurement period is broken up into 13 four-week months.

Providing Feedback to Field Test Reports

All stakeholders can provide feedback on the measures, documentation, and report presentation through this [online survey](#) during field testing.⁶ Field testing will take place from October 3, 2018 through October 31, 2018. Stakeholders can attach a PDF or Word document with their comments. Comments may be submitted anonymously if preferred.

Episode-Based Cost Measures

What are 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”). Episode-based cost measures inform clinicians about the cost of the care they are responsible for providing to a beneficiary during the episode’s timeframe. In the field test reports and their supplemental documentation, the term “cost” generally means the Medicare allowed amount, which includes both Medicare trust fund payments and any applicable beneficiary deductible and coinsurance amounts, on traditional, fee-for-service claims.

Episode-based cost measures are calculated with Medicare Parts A and B fee-for-service claims data and are based on *episode groups*. Episode groups:

- Represent a clinically cohesive set of medical services rendered to treat a given medical condition.
- Aggregate all items and services provided for a defined patient cohort to assess the total cost of care.
- Are defined around treatment for a condition (i.e., acute inpatient or chronic) or performance of a procedure.

Services in the episode group could be treatment services, diagnostic services, and ancillary items and services directly related to treatment (such as anesthesia for a surgical procedure). They can also be services that happen after the initial treatment period that may be given to patients as follow-up care or to treat complications resulting from the treatment.

An episode is a specific instance of an episode group for a given patient and clinician. For example, in a given year, a clinician might be attributed 20 episodes (instances of the episode group) from the episode group for heart failure.

To make sure there is a more accurate comparison of cost across clinicians, episode costs are payment standardized and risk-adjusted.

- **Payment standardization** adjusts the allowed amount for a Medicare service to facilitate cost comparisons and limit observed differences in costs to those that may result from health care delivery choices. Payment standardized costs remove the effect of differences in Medicare payment among health care providers that are the result of differences in

⁶ The field testing online survey will be open beginning the first week of October 2018 at this link: <https://www.surveymonkey.com/r/2018-macra-cost-measures-field-testing>.



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.

- **Risk adjustment** accounts for patient characteristics that can influence spending and are outside of clinician control. For example, for the Renal or Ureteral Stone Surgical Treatment episode-based cost measure, the risk adjustment model may account for patients with a history of end stage renal disease (ESRD).

Attribution of Episodes to a Clinician for Episode-Based Cost Measure

After episodes begin, or are triggered, clinicians are identified using the TIN field, along with NPI information in the “rendering provider” field on Part B Physician/Supplier (PB) claims. The method of attribution varies by episode type:

- For procedural episode groups, episodes are attributed to the clinician(s) or clinician group(s) rendering the trigger services as identified by Current Procedural Terminology/Healthcare Common Procedure Coding System (CPT/HCPCS) procedure codes.
 - For example, an orthopedic surgeon billing CPT/HCPCS code 27130 would be attributed an Elective Primary Hip Arthroplasty episode. Additional conditions to trigger an episode may apply, for instance if occurring concurrent to an inpatient hospitalization.
- For acute inpatient medical condition episode groups, an episode is attributed to a clinician group rendering at least 30 percent of inpatient E&M services during an inpatient hospitalization with an MS-DRG for the episode group, and to clinicians who bill at least one inpatient E&M claim line under a TIN that meets the 30 percent threshold.
 - For example, for an internist to be attributed an episode for the Inpatient COPD Exacerbation measure:
 - The internist must bill at least one inpatient E&M PB claim line during the trigger inpatient hospitalization.
 - The PB claim line must be concurrent to an inpatient hospitalization with MS-DRG 190 and must be accompanied by a relevant diagnosis as specified by the Clinical Subcommittee.
 - The internist must be part of a TIN that bills 30 percent of inpatient E&M codes on PB claim lines for that inpatient hospitalization.

Calculation of Episode-Based Cost Measures

To calculate the measures, we perform the following steps using all episodes in an episode group that are attributed to a clinician or clinician group:

Step 1: Determine observed costs for each episode by aggregating standardized allowed amounts for services determined to be clinically related to a given condition or procedure that occur within the episode window.

Step 2: Determine expected costs for each episode through risk adjustment by taking into account factors that are included in the CMS Hierarchical Condition Category Version 22 (CMS-



HCC V22) 2016 Risk Adjustment Model as well as additional risk adjustors recommended by Clinical Subcommittee workgroups for each episode group. If a measure has sub-groups, this includes only episodes within the same sub-group nationally.

Step 3: Divide the observed cost for each episode by the expected cost to obtain the observed/expected ratio for each episode.

Step 4: Sum the observed/expected ratios for all the episodes across the entire episode group (i.e., across all sub-groups) for the TIN or TIN-NPI.

Step 5: Divide by the total number of episodes attributed to the TIN or TIN-NPI across the episode group to obtain the average observed/expected ratio for all episodes.

- This average ratio's standing relative to 1 is what indicates whether a clinician's episodes cost more or less than expected on average.

Step 6: Multiply the result by the national average observed episode cost for all episodes across all sub-groups to obtain the cost measure score.

- This is done to convert the average ratio into a figure that is more meaningful from a cost perspective by having the clinician's average cost measure score represented as a dollar amount rather than a ratio.

Re-evaluated Measures

1. Medicare Spending Per Beneficiary (MSPB) Clinician Measure

What is the MSPB clinician measure?

The re-evaluated MSPB clinician measure assesses the cost performance of clinicians who furnish inpatient care services to Medicare beneficiaries. The measure includes Medicare Parts A and B costs occurring during the episode window, excluding certain services identified as unlikely to be influenced by the clinician's care decisions. As background, the current MSPB measure has been part of the MIPS cost performance category since the 2017 MIPS performance period. Prior to its current use in MIPS, CMS used a version of the MSPB measure in the Value Modifier Program and reported it in annual QRURs until MACRA ended the Value Modifier program. The measure that has been used in MIPS since the 2017 performance period assesses total Medicare Parts A and B costs incurred by a single beneficiary immediately prior to, during, and 30 days following a qualifying inpatient hospital stay and compares these observed costs to expected costs.

As part of measure maintenance and re-evaluation, the MSPB clinician measure has been refined through stakeholder input and is now being field tested. The MSPB clinician measure has been re-evaluated with substantial stakeholder feedback and represents a refinement of the MSPB measure that is in use for MIPS. This re-evaluated measure will be field tested in October 2018 and will not affect payment adjustments. It is separate from the reporting of the MIPS MSPB measure for the 2017 and 2018 MIPS performance periods.

Attribution of Episodes to a Clinician for the Re-evaluated MSPB Clinician Measure

The re-evaluated measure uses separate attribution methods for medical and surgical episodes to identify the clinician(s) responsible for providing these different types of care. Medical episodes are attributed to a clinician group that rendered at least 30 percent of E&M services during the period between the index admission date and the discharge date for a hospitalization with a medical MS-DRG, and to any clinician that billed at least one E&M service under a clinician group that meets the 30 percent threshold. Surgical episodes are attributed to the clinician and clinician group that rendered the main procedure of the stay as identified by the CPT/HCPCS code found on the PB claim concurrent to the surgical MS-DRG. The current MSPB measure attributes each episode to the clinician billing the plurality of costs for Medicare PB services rendered during an index admission.

Calculation of the Re-evaluated MSPB Clinician Measure

The re-evaluated MSPB clinician measure is calculated through the steps below:

Step 1: Determine the observed costs for each episode by aggregating Medicare Parts A and Part B standardized allowed amounts for services that occur within the episode window, excluding certain services identified as unrelated to the reason for the index inpatient stay.

Step 2: Determine expected costs for each episode using a risk adjustment model based on the CMS-HCC V22 2016 Risk Adjustment model with additional modifications specific to the re-evaluated MSPB clinician measure as described above.

Step 3: Sum the ratio of payment-standardized observed cost (from Step 1) to expected cost (from Step 2) for all the MSPB episodes that are attributed to the TIN.

Step 4: Multiply the sum of ratios by the national average payment-standardized observed episode cost.

Step 5: Divide the result of Step 4 by the total number of MSPB episodes attributed to a given TIN.

Steps 3 through 5 together calculate an average ratio of observed to expected costs across episodes and multiply this ratio by a national average observed episode cost. This is done to convert the final figure (the cost measure score) into a figure that is more meaningful from a cost perspective.

Although steps 3 through 5 refer to measure calculation for the attributed TIN, analogous steps apply for calculation of the TIN-NPI level cost measure score.

2. Total Per Capita Cost (TPCC) Measure



What is the TPCC measure?

The re-evaluated TPCC measure assesses the cost performance of clinicians providing primary care management of Medicare beneficiaries. As background, the current TPCC measure has been part of the MIPS cost performance category since the 2017 MIPS performance period. Prior to its use in MIPS, CMS used a version of the TPCC measure in the Value Modifier Program and reported it in annual QRURs until MACRA ended the Value Modifier program. The measure currently used in MIPS is a payment-standardized, risk-adjusted, and specialty-adjusted cost measure focused on clinicians/clinician groups performing primary care services. Specifically, the measure is an average of per capita costs across all attributed beneficiaries, and includes all Medicare Parts A and B costs across all attributed beneficiaries.

As part of measure maintenance and re-evaluation, the TPCC measure has been refined through substantial stakeholder feedback and is now being field tested. The TPCC measure has been re-evaluated with substantial stakeholder feedback and represents a refinement of the TPCC measure that is in use for MIPS. This re-evaluated measure will be field tested in October 2018 and will not affect payment adjustments. It is separate from the reporting of the MIPS TPCC measure for the 2017 and 2018 MIPS performance periods.

Attribution of Episodes to a Clinician for the Re-evaluated TPCC Measure

The re-evaluated measure only attributes events (defined as primary care E&M services) that meet specified criteria. For example, the event will only be considered for attribution if it is accompanied by another E&M or primary care service. Under the revised measure, each attributable event initiates a one-year risk window during which a beneficiary's costs may be attributable to a clinician. The portion of a beneficiary's costs billed within months (i.e., episodes)⁷ that overlap both the measurement period and an open risk window with a clinician are attributed to that clinician. In cases where a beneficiary has multiple overlapping episodes associated with different clinicians in a single month, the beneficiary's costs for that month are attributed to each clinician associated with an episode that overlaps that month. However, a beneficiary's costs are only assigned to one clinician within a given clinician group, based on which clinician provided the most qualifying primary care events, or in the case of a tie, the clinician that provided the earliest qualifying primary care event.

Calculation of the Re-evaluated TPCC Measure

The TPCC measure is calculated through the steps below:

Step 1: Determine observed costs for each episode in the measurement period by aggregating Part A and Part B standardized allowed amounts for services that occur within the episode.

Step 2: Determine risk-adjusted costs for each episode in the measurement period by dividing the observed costs by the normalized CMS-HCC risk score described above. For episodes with

⁷ For the re-evaluated TPCC measure, an episode is a 4-week interval or partial interval associated with a beneficiary during the measurement period that is attributable to a clinician or clinician group based on overlap with a risk window.

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partial coverage, risk-adjusted costs are pro-rated according to the portion of the period during which the TIN or TIN-NPI was attributed to the beneficiary.

Step 3: Trim outliers by assigning the 99th percentile of monthly costs to all episodes in the measurement period with costs at or above the 99th percentile of costs.

Step 4: Normalize risk-adjusted, trimmed costs by applying an adjustment factor to account for differences in expected monthly costs related to the number of clinician groups a beneficiary sees in a given month.⁸

Step 5: Sum normalized, risk-adjusted monthly costs for all episodes attributed to the TIN or TIN-NPI.

Step 6: Divide by the total number of episodes attributed to the TIN or TIN-NPI to obtain the average risk-adjusted, normalized cost for all episodes.

Measure calculation for a TIN or TIN-NPI is completed with the calculation of Step 6 above. The measure constructed via the above steps can be conceptualized as the sum of risk-adjusted total monthly costs across all attributed episodes for a TIN or TIN-NPI, divided by the number of attributed episodes for the TIN or TIN-NPI.

Questions or Need More Information?

Should you have further questions, please contact the Quality Payment Program Service Center via telephone at 1-866-288-8292 or via email at gpp@cms.hhs.gov. The Help Desk is available Monday – Friday; 8:00 A.M. – 8:00 P.M. Eastern Time Zone.

⁸ Specifically, monthly costs are divided by the cube root of the number of clinician groups to which a beneficiary is attributed for a month.

