



**Physician Cost Measures and Patient
Relationship Codes (PCMP) Technical Expert
Panel**

December 18, 2024

Summary Report

June 2025

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1 INTRODUCTION

The Centers for Medicare & Medicaid Services (CMS) contracted Acumen, LLC (“Acumen”) through the Physician Cost Measures and Patient Relationship Codes (PCMP) contract to develop, maintain, and re-evaluate cost and value measures, as well as to support CMS’ work on Patient Relationship Codes (PRCs), for the Merit-Based Incentive Payment System (MIPS). The contract name is Acumen also maintains the Medicare Spending Per Beneficiary (MSPB) Hospital measure used in the Hospital Value-Based Purchasing (VBP) program and the Hospital Inpatient Quality Reporting (Hospital IQR) program. The contract number is 75FCMC18D0015, Task Order 75FCMC24F0142, and continues work performed under the previous “MACRA Episode Groups and Resource Use Measures” contract (contract number HHSM-500-2013-13002I, Task Order HHSM-500-T0002) and “Physician Cost Measures and Patient Relationship Codes” contract (contract number 75FCMC18D0015, Task Order 75FCMC19F0004).

This report summarizes the PCMP Technical Expert Panel (TEP) meeting on December 18, 2024. Section 1 outlines the context for the project and the TEP. Section 2 summarizes each session’s presentation, member discussion, and key findings. The discussion summaries presented do not represent consensus but consolidate related feedback. Finally, Section 3 outlines the next steps for this project.

1.1 Project Context

The Medicare Access and Children’s Health Insurance Program (CHIP) Reauthorization Act (MACRA) of 2015 established the Quality Payment Program (QPP), which rewards the delivery of high-quality patient care through Advanced Alternative Payment Models (Advanced APMs) and the Merit-based Incentive Payment System (MIPS). MIPS assesses eligible clinicians in four performance categories – quality, promoting interoperability, improvement activities, and cost. MACRA requires that cost measures implemented in MIPS include consideration of care episode groups and patient condition groups (referred to as “episode groups”). Acumen constructs clinically valid cost measures for MIPS using extensive engagement, including a TEP, measure-specific panels of clinician experts (Clinical Expert Workgroups), person and family engagement (PFE) representatives, and the public via field testing and public comment periods. Since the inception of MIPS in 2017, the inventory of cost measures has grown from only two population-based measures, Total Per Capita Cost (TPCC) and Medicare Spending Per Beneficiary (MSPB) Clinician, to the 35 cost measures in use for the 2025 performance period. The measure set for 2025 includes 15 procedural episode-based cost measures (EBCMs), seven acute inpatient medical condition EBCMs, 10 chronic condition EBCMs, and one measure

focusing on the care provided in the Emergency Department setting, in addition to TPCC and MSPB Clinician.

1.2 TEP Member and Meeting Information

The TEP panel includes members with diverse perspectives, including experts in health care, payment policy, payment models, and performance measurement; clinicians across many specialties; and patient advisors who share their perspectives from lived experiences. Please refer to Appendix A for a full list of TEP members.

The TEP met for the first time on December 18, 2024 for a virtual TEP meeting; all 23 TEP members were in attendance. The TEP meeting began with an introductory session to provide an overview of the PCMP project activities. The rest of the meeting consisted of 3 sessions focusing on different aspects of the project: cost measure development prioritization; developing value measures to align with cost measures; and testing and next steps for PRCs. The *PCMP TEP Charter* was also distributed to the members for review and was ratified during the meeting. Following the meeting, TEP members were asked to submit additional feedback via an online survey.

2 DISCUSSION SUMMARY

This section summarizes TEP member discussions and recommendations, and each subsection focuses on a meeting session. Subsections 2.1, 2.2, and 2.3 summarize the presentations, member discussions, post-meeting poll feedback, and key takeaways on each of the sessions presented during the TEP meeting.

2.1 Cost Measure Development Prioritization

During this session, Acumen discussed ways to identify and prioritize measurement gaps, as well as approaches to address challenges to development. Acumen sought TEP guidance to identify priority topics for cost measure development and presented questions to facilitate discussion. Section 2.1.1 summarizes Acumen's presentation, section 2.1.2 outlines the TEP members' discussion, and section 2.1.3 contains key takeaways.

2.1.1 Summary of Presentation

During this session, Acumen provided an overview of cost measure prioritization criteria and discussed the following topics to inform cost measure prioritization discussions: i) specialty coverage and specialty gaps in the current cost measure set, ii) stakeholder feedback on measure concepts, and iii) cost measure alignment across CMS programs and models.

Acumen discussed the cost measure prioritization criteria and previous cost measure development to provide a framework ahead of prioritization discussions. With input from TEP and Patient and Family Engagement (PFE) stakeholders, CMS codified cost measure prioritization criteria in the CY 2022 Physician Fee Schedule Final Rule.¹ These criteria include:

- Clinical coherence of measure concept to ensure valid comparisons across clinicians.
- Impact and importance to MIPS (i.e., cost, clinician, and patient coverage).
- Opportunity for performance improvement.
- Quality measure and improvement activity alignment to ensure meaningful assessments of value.

Acumen discussed that prioritization has evolved from the rapid development of high-volume procedures and acute hospitalizations to developing smaller numbers of measures to fill specialty gaps, support MIPS Value Pathways (MVPs), and tackle challenging clinical topics. Prioritization has led to the development of 35 MIPS EBCMs. With a large cost measure inventory, Acumen noted that prioritization may require weighing strengths across criteria.

¹ CY 2022 PFS Final Rule (86 FR 65456 – 65457) <https://www.federalregister.gov/d/2021-23972/p-4694>

Specialty Coverage and Gaps

Acumen described empirical analysis findings to inform the TEP on specialty coverage and gaps in the MIPS cost measure inventory. First, Acumen presented specialties with the largest number of clinicians who are not attributed any cost measure episodes under EBCMs, Total Per Capita Cost (TPCC), or Medicare Spending Per Beneficiary (MSPB) Clinician. Acumen also presented another analysis that showed specialties with the largest number of clinicians who are not attributed any EBCM episodes. In both analyses, some of the specialties with the largest number of clinicians include Certified Registered Nurse Anesthetist (CRNA), Diagnostic Radiology, Anesthesiology, and Nurse Practitioner.

Stakeholder Feedback

Acumen presented interested party feedback from previous prioritization exercises to inform the TEP of prior measure concepts that were considered and potential measure concepts. These concepts include measures addressing glaucoma, pathology care, osteoarthritis of the knee, chronic liver disease, obstetrics and gynecology, and kidney and urinary tract infection (UTI). Acumen also discussed how recent measure development Waves have addressed challenging measure concepts. For instance, coding limitations due to the use of claims data can be overcome with claims-based proxies or additional data sources.

Cost Measure Alignment

Acumen discussed Center for Medicare and Medicaid Innovation (CMMI) model cost measures to consider in prioritization discussions given CMS' goal to transition MVPs into CMMI models. As an example, Acumen presented cost measures from the Bundled Payments for Care Improvement (BPCI) Advanced Model without an equivalent MIPS EBCM for the TEP to consider which include Seizures, Cardiac Arrhythmia, Cellulitis, and Major Bowel Procedure among other measures.

Discussion

Acumen presented the following questions for discussion:

- Are there any changes needed to the prioritization criteria to reflect the current stage and goals of MIPS?
- Should the prioritization criteria be equally weighted or are some more important than others? If so, how would you rank them in order of importance?
- Which are your preferred measure concepts to develop over the next three waves? Why?
- What are ways to overcome challenges with developing certain types of care?

2.1.2 TEP Member Discussion

TEP members provided feedback on how to apply the existing cost measure prioritization criteria to upcoming measure development activities. TEP members generally supported

maintaining the current prioritization criteria, but questioned whether it would be beneficial to consider clinician and specialty coverage. Rather, TEP members suggested prioritizing clinical topics that reflected the highest Medicare spending or greatest number of Medicare beneficiaries. Additionally, the TEP suggested that CMS consider the potential for harmonization with existing cost and quality measures for use in MVPs. They also recommended the development of clinician- and group-level measures to align with existing hospital-level or Alternative Payment Model (APM) measures, such as those used in the Bundled Payments for Care Improvements (BPCI) Advanced or Transforming Episode Accountability Model (TEAM) models.

Several TEP members emphasized the importance of having sufficient cost performance variation and opportunities for improvement when considering cost measure concepts. They suggested prioritizing measure concepts where there is evidence that less costly approaches are associated with equal or better outcomes. A couple of TEP members discussed how system-level interventions, which may or may not be reimbursable by Medicare, can have a large impact on spending, health outcomes, and patient experience, and recommended prioritizing measures with opportunities for improvement within these areas (e.g., care coordination, case management services, telehealth services, shared visits). As a point of reference, one panelist recommended modeling prioritization criteria based on common characteristics in MIPS measures that have led to a significant improvement in cost or quality outcomes since implementation. Members also suggested measures with longer windows that would examine successful long-term care, tracking key performance indicators such as return on investment, and adopting standardized procedures to reduce variability and improve cost predictability.

TEP members discussed whether any specific measure concepts should be prioritized for development. Several TEP members proposed opportunities to develop measures for specialties that do not currently have an applicable cost measure or have cost measures with only limited applicability (e.g., radiologists, pathologists, anesthesiologists/Certified Registered Nurse Anesthetists [CRNAs]). One member pointed to the development of a breast cancer screening measure as evidence that a lung cancer screening measure may be feasible. Another TEP member suggested developing a measure for pathologists based on the rate of inconclusive results and choice in technology used. Additionally, one TEP member suggested that pain management may be a promising concept with potential applicability to anesthesiologists and other clinician types, pointing to clinicians' discretion in the number of procedures performed. One TEP member suggested considering development of episode-based cost measures focused on ambulatory care or preventive care. Further, a TEP member proposed using the co-occurrence of several diagnoses for one patient to create a combined measure concept, such as identifying patients with metabolic syndrome (e.g., combination of diabetes, hypertension, obesity) or extreme cardiovascular risk (e.g., combination of hyperlipidemia, hypertension, and smoking).

In the post-meeting survey, TEP members provided rank-order preference of certain measure topics being considered for the next wave of development. Urinary Tract Infection (UTI), Osteoporosis, Breast Cancer, and Lung Cancer had the highest average rank-order preference. TEP members also included considerations for developing these specific measures. For example, one member noted that a UTI measure is too broad and suggested a Recurrent UTI measure instead. Members cautioned that heterogeneity amongst dementia patients and potential unintended consequences of incentivizing care to shift from clinicians to families could pose challenges for developing a Dementia measure. Other suggested cost measure concepts focused on healthcare-acquired infections, end of life care, use of biologics compared to less costly biosimilar options, and coordination of care.

When asked about the potential development of cost measures for non-patient facing clinicians such as anesthesiologists, radiologists, and pathologists, some TEP members believed anesthesiologists should not be categorized as non-patient facing, as many practice pain management and decide on interventional procedures for patients. Similarly, one TEP member highlighted that interventional radiologists can also be patient-facing, given their power to decide on numerous invasive treatments. Some potential measure topics that were suggested for these specialties include multimodal pain management for anesthesiologists, evidence-based imaging for radiologists, indeterminate samples for pathologists, and timeliness of results for both radiologists and pathologists. One member suggested using previous examples from the Choosing Wisely guidelines, such as inappropriate testing and low value imaging.

TEP members considered some of the challenges that accompany cost measure development. First, members acknowledged that the current cost measures only consider care provided to Medicare Fee-for-Service (FFS) beneficiaries, and noted that the increasing proportion of Medicare Advantage beneficiaries will result in reduced clinician and beneficiary coverage. TEP members indicated support for exploring whether Medicare Advantage data could be incorporated into the measures. Members noted that Medicare Advantage data should be standardized to ensure it is comparable to traditional Medicare data, as there are significant differences in data quality, especially in encounter data. Similarly, some TEP members highlighted that while Medicare claims data can provide much information necessary for constructing cost measurement, additional data sources, such as Electronic Health Record (EHR) and registry data, should be considered so that clinical information can be incorporated into the measure. Some TEP members also acknowledged that basing measures on Medicare claims data minimizes provider burden, while others noted that additional data sources could still be incorporated in a way that would not substantially increase burden. Technological innovations like artificial intelligence, predictive analytics, and blockchain were suggested to improve data sharing, analysis, and transparency. Additionally, several TEP members noted challenges with developing measures that reflect variation in the extent to which clinicians can influence costs of

care. For example, clinicians may be able to influence costs of care based on their practice level (e.g., physicians, other clinician types), type (e.g., specialty group, large health system), or setting (e.g., clinic, hospital). Members suggested managing complexity in care through approaches like episodic bundling and more accurate cost attribution, especially when multiple clinicians are involved.

2.1.3 Key Takeaways

- TEP members generally supported maintaining the current prioritization criteria, and reinforced that clinical areas with high-cost variation and opportunities for improvement should be prioritized for development.
- For non-patient facing specialties, measures should reflect clinical decision-making and patient outcomes. For example, the TEP suggested focusing on measures that help to manage redundant tests and improve turnaround times.
- To overcome challenges with cost measure development, the TEP recommended integrating Medicare Advantage claims data and leveraging data from clinical registries and EHRs.

2.2 Developing Value Measures to Align with Cost Measures

This session focused on discussing value measure development and identifying potential value measure concepts. Acumen sought feedback on draft value measure standards, framework, and prioritization criteria and provided questions to facilitate TEP discussion. Section 2.2.1 outlines Acumen's presentation, Section 2.2.2 summarizes the TEP members' discussion, and Section 2.2.3 contains key takeaways.

2.2.1 Summary of Presentation

During the presentation, Acumen reviewed the following topics to discuss how to adapt existing cost measure guidance to support value measure development: i) an overview of planned value measure development, ii) alignment with cost measure standards and framework, and iii) value measure prioritization criteria.

Overview

Acumen discussed how value measures support CMS priorities and provided an overview of value measure input to date. Currently, cost measures include important indicators of value/quality (e.g., complications, readmissions). Acumen described that certain quality/value aspects may not be able or appropriate to capture through a cost measure (e.g., mortality, high-cost services with cost savings that may not be realized in the short term). Therefore, the development of value measures offers the opportunity to assess health outcomes and quality achieved relative to the cost of the care. Furthermore, value measures can fill measurement gaps and promote alignment in cost/quality (value) assessment without increasing clinician burden.

Acumen described that Workgroups and TEPs have highlighted the need to consider value or quality outcomes alongside measures. For instance, Non-Pressure Ulcers EBCM Workgroup and public commenters noted that while there are related MIPS quality measures, they felt there is a need for additional measures to assess value more specific to non-pressure ulcers. Prior TEPs have also discussed that certain outcomes, such as mortality, would be more appropriate to be assessed separately from cost measures.

Standards and Framework Alignment

Acumen discussed considerations to complement value measure standards and frameworks with cost measure processes to ensure cost measure alignment and that measures are acceptable for use. Acumen emphasized that value measure concepts should capture aspects of care that align with, but do not duplicate, aspects of care assessed by cost measures. For instance, a value measure could evaluate the appropriateness of procedures based on clinical guidelines to provide complementary information about care quality.

Acumen noted that value measures will leverage the current cost measure development process, which utilizes extensive stakeholder input (i.e., TEPs, workgroups, and interested party input). Furthermore, Acumen emphasized that value measures should meet CMS standards. For instance, following Measure Management System (MMS) Blueprint guidance (i.e., importance, feasibility, scientific acceptability, and usability).² Acumen also noted that the TEP could consider adapting cost measure standards for value measures. For instance, ensure clinicians are held accountable for only the value outcomes/quality actions that they can reasonably influence. Similarly, Acumen also discussed that cost measure frameworks could be applied to value measures to align with cost measures and presented the following framework using standard EBCM measure construction steps: i) define the episode, ii) attribute episodes to clinicians and groups, iii) identify outcome or quality action, and iv) account for patient heterogeneity (risk adjustment, exclusions),

Prioritization

Acumen also discussed the importance of measure prioritization, which should generally rely on similar prioritization criteria as cost measures referenced in Section 2.1.1, with modifications. For example, prioritization could be given to cost measures based on existing closely related quality measures, importance of potential measure (e.g., largest patient cohort, impact on patient care quality), magnitude of performance gap, or potential unintended consequences if there is no paired value measure.

² Measures Management System (MMS) Blueprint Measure Lifecycle Overview (2024)
<https://mmshub.cms.gov/measure-lifecycle/measure-testing/overview>

Discussion

Acumen presented the following questions for discussion:

- What guiding principles should be used to define value outcomes/quality actions?
- What guiding principles should be used to align frameworks and specifications for paired cost and value measures? When are differences in frameworks and specifications important for the measure?
 - Does this differ depending on the type of value measure? (e.g., a measure for appropriateness may not need to be risk-adjusted for clinical factors, but could have different exclusions or stratification)
- Are certain types of value measures higher priority to develop than others? How should we weight different factors in prioritizing value measures for development?

2.2.2 TEP Member Discussion

TEP members focused their discussion on overarching principles for developing value measures. When considering what aspects of value would be most useful to measure, TEP members discussed that value measures could “balance” the existing cost measures by further guarding against potential unintended consequences. For example, value measures could i) reward the use of high-value services for which cost savings may not be fully captured within a cost measurement period or which are important to patient outcomes (e.g., rehabilitative care for paralysis patients, use of implantable cardioverter defibrillators in high-risk patients), ii) disincentivize care stinting (e.g., preventing mortality may be associated with increased costs, but preventing avoidable mortality is also an important quality indicator), and iii) disincentivize cost shifting. Some TEP members also noted that aspects of value may already be captured in cost measure performance, such as increased costs associated with poor quality care. TEP members suggested looking at sources such as clinical guidelines or the Choosing Wisely campaign to define value. Another TEP member recommended considering value measures that assess interoperability, such as reducing duplication of radiologic studies related to facility transfers or clinician preference.

In the post-meeting survey, members were asked if there are additional outcomes or quality actions that should be considered as potential value measure concepts. Generally, TEP members believed that value measures should focus on areas with large patient populations and significant performance gaps, particularly where disparities exist, such as Chronic Obstructive Pulmonary Disease (COPD) exacerbation, lumbar-spine fusion, knee arthroplasty, cataract surgery, and colonoscopy. Other clinical areas that were highlighted by the TEP include emergency medicine, reproductive care, cardiovascular care, gastrointestinal care, orthopedic care, urologic care, neurological care, and oncologic care. Additional opportunities for assessing value would include the development of measures for palliative care utilization or for the use of

telehealth and remote monitoring tools for patient follow-up and chronic disease management. The TEP also highlighted additional value measure concepts not currently available through Medicare claims and administrative data. For example, TEP members noted the importance of Patient-Reported Outcomes (PROs) to assess health-related quality of life, symptom relief, and functional status, as they felt that value measures should capture patient satisfaction, shared decision-making, and health equity. One member noted that if CMS can reliably gather Patient Health Questionnaire (PHQ-9) data, encouraging measurement-based care could improve outcomes, particularly for depression, by better integrating it into clinical practice.

Several TEP members commented on how value measures would be constructed and used in MIPS. Some members suggested a combined value metric (i.e., quality divided by cost equals a combined value measure score). One TEP member noted their support for CMS developing additional specialty-specific quality measures for use in MIPS to help clinicians meet reporting requirements. The TEP also suggested existing quality and cost measures could be combined to create a new value metric, such as using a Patient-Reported Outcome Measure (PROM) and an episode-based cost measure (EBCM). In the post-meeting survey, members generally agreed on aligning the value measure framework and specifications to those of cost measures (i.e., defining episodes with consistent clinical triggers, timeframes, service assignment, as well as shared attribution, risk adjustment, and exclusions). Members suggested factors like patient-centeredness, health equity, clinical feasibility, and evidence of impact should be considered when prioritizing value measures.

TEP members also highlighted key considerations to develop value measures. Several TEP members discussed the benefits and limitations of developing value measures using Medicare claims and administrative data. TEP members pointed to benefits such as reduced reporting burdens and the availability of data across all Medicare providers and beneficiaries. TEP members also noted that many outcomes are readily captured within claims data, such as returns to the operation room, hospitalizations and readmissions, and number of days at home or in the hospital. Other TEP members questioned whether claims data would be able to sufficiently capture outcomes and account for patient heterogeneity, as claims data does not include patient-reported or clinical data, suggesting that CMS and Acumen consider the incorporation of other data sources (e.g., registries, EHRs, patient experience data). One TEP member cautioned against implementing claims measures that would require clinicians to update their coding practices, such as the prior use of G codes for quality measure reporting.

2.2.3 Key Takeaways

- The TEP agreed on aligning the value measure framework and specifications to those of cost measures (i.e., defining episodes with consistent clinical triggers, timeframes, service assignment, as well as shared attribution, risk adjustment, and exclusions).

- The TEP suggested that value measure concepts focus on high-cost services with long-term impacts on quality and cost (e.g., rehabilitative services) and areas with large patient populations and significant performance gaps (e.g., COPD exacerbation).
- TEP members highlighted the need for value measures to be patient-centered and to consider health equity.
- The TEP expressed concerns about using Medicare claims data alone to develop value measures, suggesting the use of data from registries, EHRs, and patient experience data instead.

2.3 Patient Relationship Categories and Codes (PRCs)

During this session, Acumen provided an overview of PRCs, reporting over time, limitations, and recent developments. Acumen also presented updated empirical results for limited validity testing and questions to facilitate discussion. Section 2.3.1 outlines Acumen's presentation, Section 2.3.2 summarizes the TEP members' discussion, and Section 2.3.3 contains key takeaways.

2.3.1 Summary of Presentation

During this presentation, Acumen presented the following topics to inform discussion on PRC reporting use in cost measures: i) overview of PRCs, ii) PRC reporting trends, iii) and options to increase the use of PRCs.

Overview

Acumen discussed that the MACRA legislation requires the establishment and use of PRCs, which aim to distinguish services based on the length and breadth of the patient-clinician relationship at the time of service. Currently, clinicians can use five HCPCS Level II modifier codes to voluntarily report PRCs for each item/service furnished. Acumen noted that PRCs are designed to be flexible to reflect changes in clinician-patient relationships over time. For instance, a gastroenterologist providing a colonoscopy may also bill HCPCS code X4 alongside, which is used to indicate services provided for a specific condition for a defined period. If the colonoscopy leads to a Chron's disease diagnosis and the patient returns for management services, X2 can be billed to represent ongoing, specialized care. Although MACRA allows for PRCs to be used to facilitate the attribution of patients and episodes to clinicians, no existing or planned cost measures use PRCs for attribution, partly due to low reporting of PRCs.

PRC Reporting Trends

Acumen presented analyses displaying PRC reporting over time and validity analyses to inform the TEP of the opportunities and challenges of utilizing PRCs in cost measures. First, Acumen shared that between 2018 and 2023, the annual number of claim lines containing PRC modifier codes rose from 159,000 to 30.3 million, which is a promising trend, however, still only

represents less than 2% of all claim lines. Furthermore, since 2020, over 75% of PRC reporting is concentrated in the X5 code, representing an uneven distribution of reporting PRC codes.³

Second, Acumen also presented PRC reporting by specialty and specific procedure. Overall, since 2021, 75% of PRC reporting is from diagnostic radiologists. Similarly, in 2023, radiology services (e.g., X-rays and CT scans) are the most frequently reported services with PRCs, with modifier X5. Although PRC reporting is concentrated within radiology, the number of anesthesiologists and CRNAs billing PRCs more than doubled from 2021 to 2023.

Last, Acumen highlighted trends in consistency for PRC reporting. Acumen also noted that they found referral claims prior to or on the same day on 73% of the claim lines with X5, indicating that X5 is typically being used as expected. Additionally, X4 and X5 do not often follow another PRC, which aligns the definition of these codes as they are episodic or ordered by another clinician, respectively. These trends indicate that validity in the accuracy and consistency of reporting.

Encouraging PRC Use

Given the low reporting frequency of PRCs, Acumen discussed several options to further explore and encourage the use of PRCs. In the past, multiple methods have been employed to increase the usage of PRC codes. These approaches include monitoring and testing of the frequency and validity of PRC reporting and reporting trends, broad public outreach activities (e.g., factsheets, FAQs, and webinars), inclusion of PRCs in episode-level field testing files, and public comment periods to develop and refine PRCs. Acumen outlined some options to further explore and encourage use of PRCs, such as performing additional testing, conducting webinars and targeted outreach, exploring potential inclusion in MIPS feedback, and hosting public comment periods to gather additional information on facilitators/barriers for PRC use and options for inclusion in attribution.

Discussion

Acumen presented the following questions for discussion:

- Are there any additional barriers or limitations in PRC reporting?
- What additional actions can be taken to reduce the barrier and help increase PRC reporting?
- Whether PRCs should be used to facilitate cost measure attribution, and if yes, what are the criteria to determine whether PRCs can start to be used in cost measure attribution?
- What additional testing could be done to provide insights on how PRCs should be used in cost measure attribution?

³ The X5 PRC HCPCS Level II modifier code is used to indicate a clinician providing service only as ordered by another clinician. For instance, a radiologist interpreting an imaging study ordered by another clinician.

2.3.2 TEP Member Discussion

During the discussion, TEP members highlighted limitations and barriers in PRC reporting. Some members discussed concerns regarding reporting rates for certain PRCs compared to others, particularly the high reporting rate for X5 compared to X4 among the anesthesiology specialty. A few members discussed that this reporting trend is likely a result of anesthesiologists interpreting services as separate instances rather than a continuous relationship. One member noted that specialty societies may provide guidance for anesthesiologists to bill X5. Additionally, one TEP member stated that PRCs are tailored more for hospital settings and another member questioned how telehealth settings should report PRCs. In the post-meeting survey, multiple TEP members suggested a lack of knowledge regarding PRC code definitions could be leading to underuse and misuse of the codes. Another member noted that barriers such as administrative burden, lack of awareness, perceived irrelevance, variability across specialties, and unclear benefits for providers could hinder adoption.

After discussing limitations and barriers, a few TEP members also provided recommendations to overcome PRC reporting challenges. One TEP member noted that additional clinician education on PRC reporting could help ensure variation among the PRC types reported, such as specialty-specific guidance and educational campaigns. To improve reporting accuracy, one clinician suggested that PRCs be reported annually by patients rather than clinicians, as well as mandatory PRC reporting for chronic condition management services. Another clinician recommended that the PRC framework be more tailored to other providers beyond those practicing in a hospital setting. In the post-meeting survey, multiple members recommended streamlining the reporting process and linking PRC use to financial or reporting incentives. The TEP highlighted that clinician feedback can help identify further barriers to adoption and collaboration with professional organizations can demonstrate the value of accurate PRC reporting in improving attribution, cost accountability, and care quality. To that end, members recommended conducting targeted outreach to specialty societies, chronic disease organizations, lifestyle medicine groups, radiology groups, hospitalists, cross-specialty organizations, and Nurse Practitioner organizations.

TEP members also discussed whether PRCs should be used to facilitate cost measure attribution and additional testing opportunities to explore this question. A few members stated that using PRCs to facilitate cost measure attribution may lead to unintended consequences, such as misattribution, gaming cost measures, and avoiding responsibility to care for certain conditions. One member noted that PRCs could be used to better define a clinician's specialty and referenced nurse practitioners as an example. Additionally, one member recommended examining the accuracy of PRC reporting by observing the length of time between claims for episodic care. In the post-meeting survey, multiple members suggested conducting longitudinal

analyses to track trends in PRC adoption and consistency over time. One member suggested validating PRC assignments against EHR data to ensure alignment with clinical responsibilities. The same panelist noted that testing PRCs in simulated attribution scenarios and across diverse care settings can assess their utility in accurately reflecting clinician roles, particularly in multi-provider episodes. Multiple TEP members suggested specialty-specific sensitivity testing and care-setting-focused studies could further refine PRC application. One member suggested that testing the correlation between PRCs and performance metrics, such as cost and patient outcomes, can help demonstrate value. A member noted that educational initiatives can enhance understanding and correct usage, paving the way for PRCs to meaningfully contribute to cost attribution and healthcare value assessment. One TEP member strongly supported using PRCs alongside existing claims-based attribution methods rather than replacing them, as they feel that the current sample size is too small to draw definitive conclusions about unintended consequences.

When asked what information about PRC usage would be helpful to clinicians and groups in understanding PRC reporting status in their practices and their peers, one member was interested in seeing a breakdown of PRC categories used in their practice showing the frequency and distribution of each code, peer comparison data, insights into how PRC data impacts cost and quality measures along with attribution outcomes, real-world examples and case studies demonstrating how other practices have successfully integrated PRC reporting into workflows, and interactive dashboards or tools for clinicians to visualize their PRC usage over time and compare it to peers. One member suggested quarterly feedback reports for clinicians including information about their relationship with attributed patients and their use of PRCs.

2.3.3 Key Takeaways

- The TEP highlighted several potential barriers to PRC adoption, such as administrative burden, lack of provider knowledge of code definitions, variability across specialties, and unclear understanding of the impacts on both providers and clinicians.
- The TEP outlined potential unintended consequences of PRC use in cost measure attribution, such as lower reporting, misattribution, and shifting responsibility of patient care. However, they also identified potential benefits to PRC implementation, as they could increase the accuracy of cost measure attribution as well as incentivize short-term reporting, potentially leading to better long-term clinical outcomes.
- To improve clinician engagement and accuracy of PRC reporting, the TEP suggested increasing education of PRC definitions and its impacts on outcomes and costs, conducting outreach to various medical societies and groups, providing financial incentives tied to reporting, and conducting longitudinal testing to ensure accurate code use.

3 NEXT STEPS

The input provided by this TEP will help inform future measure development and measure maintenance activities. After the meetings, Acumen followed up with TEP members on their feedback and recommendations, gathering targeted input through a post-meeting survey. Based on the guidance received during the meetings and the survey responses, CMS will carefully consider the next steps below.

- **Cost Measure Development Prioritization:** CMS will consider feedback from the TEP to evaluate the current cost measure prioritization criteria and ensure it reflects the current goals of MIPS. Additionally, CMS will consider the TEP's suggestions when determining which measure concepts should be included in the next wave of development.
- **Developing Value Measures to Align with Cost Measures:** CMS will consider the TEP's input when determining how to define value outcomes/quality actions, aligning frameworks and specifications for paired cost and value measures, and prioritizing patient-centered concepts for value measure development.
- **Patient Relationship Categories and Codes (PRCs):** CMS will continue to monitor PRC use among clinicians while also exploring the TEP's recommendations for expanding the adoption of PRCs, such as increasing clinician education and awareness of PRC definitions and how PRC reporting impacts outcomes and costs.

APPENDIX A: TEP MEMBER COMPOSITION

The table below includes the full list of TEP members, their professional roles, and their affiliated professional organizations.

Table A1. PCMP TEP Composition

Name, Credentials	Professional Role	Organizational Affiliation, City, State
Adolph Yates, Jr., MD	Academic Orthopedic Surgeon	American Association of Hip and Knee Surgeons, Pittsburgh, PA
Amy Aronsky, DO, MBA, FCCP, FAASM	Medical Director	United Healthcare, Princeton Junction, NJ
Barbara Kivowitz, MSW	Patient and Family Advisor	Sutter Health
Barbara Spivak, MD	Practicing Internist, President	Massachusetts Medical Society, Newton, MA
Chloe Slocum, MD, MPH	Associate Chair for Quality	American Academy of Physical Medicine and Rehabilitation, Charlestown, MA
David Kroll, MD	Chair, Committee on Quality and Performance Measurement	American Psychiatric Association, Boston, MA
David Seidenwurm, MD, FACR	Medical Director	American College of Radiology, Sacramento, CA
Denise Morse, MBA	System Executive Director, Quality Analytics	City of Hope National Medical Center, Duarte, CA
Dheeraj Mahajan, MD, MBA, MPH, FACP, CMD, CIC, CHCQM	President and Chief Executive Officer	Chicago Internal Medicine Practice and Research, Oak Park, IL
Gregory Wozniak, PhD	Vice President, Health Outcome Analytics	American Medical Association, Chicago, IL
Jay Nathan, MD	Neurosurgery Quality Council, Chair-Elect	American Association of Neurological Surgeons, Livonia, MI
Jayme Lieberman, MD, MBA, FACS	Vice Chair	Institute for Surgical Excellence, Allentown, PA
Johnnie Sue Wijewardane, PhD, FNP-BC, FAANP	Vice President of Professional Practice	American Association of Nurse Practitioners, Brandon, MS
Joy Gelbman, MD	Assistant Director of Population Health	Weill Cornell Medicine, New York, NY
Karie Nicholas, M.A., G.Dip.	Evaluation and Measurement Manager	Foundation for Health Care Quality, Seattle, WA
Kate Lichtenberg, DO, MPH, FAAFP, FACPM	Medical Director	Anthem Blue Cross And Blue Shield, Leawood, KS
Kevin Klauer, DO, EJD	Chief Executive Officer	American Health Information Management Association, Chicago, IL
Robert Kropp, MD, MBA, CPHI	Regional Medical Director	American Academy of Neurology, Washington, DC
Rosie Bartel, MA in Educational Leadership	Patient Partner	N/A
Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CT, QCP, FAOTA, RAC-CTA	Director of Clinical Reimbursement	American Occupational Therapy Association, Napa, CA
Sarah Eakin, MD	President	Pathology Associates of Erie, Erie, PA
Stephen Epstein, MD, MPP	Chair, Board of Governors	American College of Emergency Physicians, Needham, MA
Ugochukwu (Ugo) Uwaoma, MD, MBA, MPH, FACP	Chief Executive Officer	American College of Physicians, South Windsor, CT

APPENDIX B: PCMP COST MEASURE PROJECT TEAM

The multidisciplinary Acumen measure development team includes individuals with knowledge and expertise in cost measure development, clinical practice, healthcare policy and financing, pay-for-performance and value-based purchasing, and quality improvement. The following 16 individuals from the project team attended the TEP:

- David Moore, Moderator
- Sri Nagavarapu, Co-Project Director
- Joyce Lam, Co-Project Director
- Allie Newsom, Co-Project Manager
- Lucy Wu, Co-Project Manager
- Oscar Gonzalez, Research Manager
- Mikhail Pyatigorsky, Research Manager
- Heather Litvinoff, Senior Clinical Researcher
- John Hunt, Analyst, Statistical Programming
- Shawn Ho, Analyst, Statistical Programming
- Di Yan, Policy Associate
- Joel Papke, Analyst, Statistical Programming
- Maria Figueiredo, Analyst
- Grace Nowicki, Analyst
- Ruby Bevan, Analyst
- Hanna Hassan, Analyst