

Physician Cost Measures and Patient Relationship Codes (PCMP) Technical Expert Panel July 20, 2021

Summary Report

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1 INTRODUCTION

The Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act (MACRA) of 2015 established the Quality Payment Program, which rewards the delivery of high-quality patient care through Advanced Alternative Payment Models (Advanced APMs) or the Merit-based Incentive Payment System (MIPS). MIPS eligible clinicians are assessed 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"). The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC (referred to as "Acumen") to develop, maintain, and re-evaluate cost measures for use in the MIPS cost performance category through the *Physician Cost Measures and Patient Relationship Codes (PCMP)* contract (75FCMC18D0015/Task Order 75FCMC19F0004). Acumen also maintains the Medicare Spending Per Beneficiary (MSPB) Hospital measure used in the Hospital Value-Based Purchasing (VBP) program. The PCMP project is a continuation of a previous contract, *MACRA Episode Groups and Cost Measures* (2016 to 2019).

As part of this work, we convene a Technical Expert Panel (TEP) to provide input on overarching issues across all activities. This report provides a summary of the TEP meeting on July 20, 2021. Section 1 outlines the structure and composition of the panel. Section 2 summarizes the presentation, member discussion, and key findings for each session. The discussion summaries presented are not meant to represent consensus but rather to consolidate related feedback. Finally, Section 3 outlines the next steps for this project.

1.1 Project Context

Acumen's approach to constructing clinically valid cost measures for MIPS involves extensive stakeholder engagement. Acumen convenes multiple panels in addition to this TEP: Clinical Subcommittees (CS) to recommend which measures to prioritize for development, and Clinician Expert Workgroups to provide detailed feedback on the measure specifications. In addition, we conduct field testing and hold public comment periods to gather input from the broader stakeholder community. Acumen incorporates the person and family engagement (PFE) perspective by conducting focus groups and one-on-one interviews, and engaging with PFE representatives who attend clinical panels.

The TEP's role is to provide high-level guidance on the overall direction of the project. Acumen composed this TEP by holding a nomination period in November and December 2019. Eleven members are continuing from the TEP convened under the previous contract, which had met eight times between 2016 and 2019 to discuss topics including: measure prioritization, measure frameworks, alignment of cost and quality, and refinement of MSPB and Total Per

Capita Cost (TPCC) measures. Table 1, below, lists the TEP meetings and their discussion topics.

Table 1. PCMP TEP Meetings

TEP Meeting Date	Meeting Location	Topics
February 5-6, 2020	Washington, DC (with virtual option)	 Chronic episode-based cost measure framework Patient Relationship Categories (PRC) and Codes reporting limitations Measure maintenance and re-evaluation MSPB Hospital measure re-evaluation Alignment of cost and quality Measure prioritization and conceptualization for future development
July 20, 2021	Virtual	 Refining service assignment Cost measurement gaps Approach to cost measure calculation

1.2 Standing TEP

The PCMP TEP comprises 20 stakeholders with diverse perspectives and areas of expertise. The panel includes experts in health care and payment policy, payment models, and quality and cost measurement; clinicians across many specialties; and patient advisors who share their perspective from lived experiences. Please see Appendix A for the full list of TEP members or the TEP Composition List, posted alongside this report.

Most recently, the TEP met via webinar on July 20, 2021 from 12:00 p.m. to 5:00 p.m. ET. Seventeen of the 20 members attended. In preparation for the meeting, Acumen provided TEP members with a meeting agenda, presentation slides, a background document with additional detail beyond the slides, and analyses. The *Physician Cost Measures and Patient Relationship Codes TEP Charter* was also distributed to the members for review and was approved by the 16 members who were in attendance at the start of the meeting.

The TEP meeting began with an introductory session to provide an update about project activities since the last TEP meeting in February 2020. The rest of the meeting consisted of three sessions focusing on different aspects of the project: refining service assignment rules to balance clinical specificity with comprehensibility; identifying and filling cost measurement gaps; and exploring an alternative approach to cost measure calculation. A moderator from Acumen presented discussion questions for the panel.

2 DISCUSSION SUMMARY

This section summarizes feedback shared by TEP members during the July 20, 2021 meeting. Each section focuses on a session of the meeting: Section 2.1 focuses on refining service assignment, Section 2.2 discusses cost measurement gaps, and Section 2.3 summarizes the discussion about an alternative approach to cost measure calculation.

2.1 Refining Service Assignment

Acumen and the TEP members discussed approaches to simplifying service assignment rules to achieve a balance between the clinical specificity offered by granular rules and the need for rules to be easily understandable by clinicians. Section 2.1.1 provides a summary of Acumen's presentation, Section 2.1.2 provides a summary of the TEP members' discussion, and Section 2.1.3 summarizes the key takeaways.

2.1.1 Summary of Presentation

Acumen reviewed three approaches to establishing service assignment and capturing costs of services within cost measures, and the benefits and disadvantages for each method. These approaches to cost measurement are: (i) all-cost, (ii) service exclusions, and (iii) assigned services. In the first approach, measures include the cost of all services within a period of time, and is used to reflect a broad scope of responsibility (e.g., primary care). The second approach applies service exclusions; that is, a measure considers all services as a starting point, then removes high-cost, unrelated services (i.e., a "top-down" approach to cost measurement). The third approach is to assign specific services to the care being assessed by a measure. It does this by considering a clinician's role in care, and then groups only the clinically related costs to that care to the measure (i.e., a "bottom-up" approach). This third approach is what Acumen has used constructing episode-based cost measures, reflecting the specific clinician role in care for particular conditions and procedures. The granularity of current service assignment methodology can account for very specific scenarios. However, the tradeoff is that this granularity and flexibility creates a large volume of complex rules. This creates challenges for clinicians in being able to easily understand what services are included for a given measure. The set of rules also require substantial time and resources to develop and maintain. Given this tradeoff, our team sought the TEP's input on whether to, and if so, how to simplify the way that service assignment rules are constructed.

Acumen presented potential refinements the three key dimensions of service assignment methodology: (i) what level of granularity are used to identify services, (ii) how to ensure clinical relatedness through diagnosis codes, and (iii) over what time period should services be designated for inclusion in a measure. Firstly, Acumen proposed aggregating services to serve as a unit for other decisions in service assignment (e.g., considering all services related to surgical

complications together, rather than each service separately). We also suggested removing rules that define services as related or not by the presence or absence of another service (e.g., a service could be included in a measure if it was not present in the lookback period, or an inpatient stay may be included only if a specific procedure was performed during that hospitalization). Secondly, services could be assigned based on ICD-10 diagnosis codes at the three-digit level instead of the five-digit level. Lastly, services could be assigned based only on whether they occur in the pre- or post-trigger period, rather than more specific timeframes within those periods.

In addition to presenting these strategies, we tested how all these refinements impacted Wave 1 and 2 measures. For the purposes of testing, we implemented all refinements with the expectation that these may be too simple, and compared them to the measures as currently constructed. By design, the version of the measures with the simplified service assignment rules resulted in higher observed costs per episode, although the extent of the increase varied across measures. We also tested the impact on reliability and validity. Across measures, there was minimal impact on mean reliability (difference of \pm 0.03 or less) for the majority of measures at both the TIN and the TIN-NPI level when comparing the current measures with the version with simplified service assignment rules. We examined whether the additional observed costs affected the risk adjustment model's ability to predict costs by testing predictive ratios (i.e., average expected costs/average observed costs) across different levels of patient risk. We found that the predictive ratios remained centered around 1.0 across risk deciles, indicating that the risk adjustment model continued to account for varying levels of patient complexity.

Acumen presented the following questions for discussion:

- What are some principles that can help identify the appropriate balance between clinical specificity and understandability?
- Which approaches to simplifying service assignment rules are preferable? Should any approaches be discarded for being too simple?
- Besides reliability and predictive ratios, what other tests can help evaluate the impact of simplifying service assignment rules?

2.1.2 TEP Member Discussion

TEP members agreed that current approach to service assignment is complex and could be burdensome for clinicians to navigate and understand. They shared insights about the variation in coding practices across clinicians practicing in different clinical settings and specialties. They particularly highlighted differences in applications across inpatient, outpatient, and emergency care settings. Given the variability inherent to coding, TEP members agreed the current level of specificity in assignment rules poses challenges and favored a simpler approach.

Members were particularly interested in ways to improve consistency across measures, which would be helped by having simpler service assignment rules to enable review.

When considering the three dimensions of simplifying service assignment rules, TEP members mostly discussed the level of specificity in diagnosis codes and timing considerations. Members were supportive of using three-digit diagnosis codes rather than five-digit codes when determining clinical relatedness, believing that this was the appropriate level of specificity. One member noted that 3-digit diagnosis codes are easier to grasp, and that this would be an appropriate tradeoff with clinical specificity and understandability of service assignment rules. A few members suggested additional testing to better understand the impact of this specific aspect of simplifying service assignment rules, for example, examining what services are added when moving from 5- to 3-digit diagnosis codes. With regards to timing simplification, one member suggested that one approach to determining timing rules was to include costs more broadly with close proximity to a trigger event, and then incorporating more granular rules for periods after that. For example, a measure could capture all costs up to 7 days after an index procedure, and then include only procedure-related events (e.g., infection) up to 90 days after the index procedure. Members did not provide detailed feedback on refining rules requiring the presence or absence of another service.

In discussing the impact of these simplified service assignment rules, the TEP overall noted that there was not much impact in the testing results when comparing the simplified version of the measures with the current specifications. Members were generally not concerned about the increase in costs grouped to measures; one member noted that the end use of the measures is that clinicians are scored relative to each other, rather than by the absolute dollar amount. A few members suggested additional testing, particularly for clinicians with higher cost episodes. They recommended further analysis at the provider-level to test the impact of simplifying rules, in addition to the episode-level analyses. A member was interested in seeing differences in performance on the current and simplified version of the measures, particularly for clinicians with small case volumes. This was an area of potential concern, as a few high-cost services brought in through the simplified rules could disproportionately impact scores for clinicians with lower case volumes as opposed to higher case volumes. Generally, members were not concerned about minimal changes to the reliability and predictive ratios for different levels of patient risk. A member suggested that another avenue of testing would be to check the face validity of services being brought in through the simplified rules, and particularly checking whether these services result in very high-cost episodes that cannot be predicted through risk adjustment.

2.1.3 Key Takeaways

- The TEP supported simplifying service assignment rules to make this aspect of the measures easier to understand. Members also noted that simpler rules could help with greater consistency in service assignment across measures.
- Members agreed that using the three-digit diagnosis codes for service assignment rules
 offered the appropriate level of granularity. Some members suggested additional testing
 to explore which additional services could be assigned by using a broader diagnosis code
 definition.
- The TEP generally agreed that the testing results suggested that the combination of all presented approaches to simplifying service assignment rules appeared to have minimal impact on the measures. Some members suggested additional analyses, particularly to explore the impact at different levels of patient risk or provider performance.

2.2 Cost Measurement Gaps

This session focused on how to identify, prioritize, and fill gaps in cost measurement. Section 2.2.1 provides a summary of Acumen's presentation, Section 2.2.2 summaries the TEP members' discussion, and Section 2.2.3 contains key takeaways.

2.2.1 Summary of Presentation

Acumen has developed 23 episode-based cost measures, with another seven currently under development across a wide range of clinical areas. These were selected using prioritization criteria from the TEP, and address high-cost areas with opportunities for improvement and alignment with quality measures. In particular, the TEP's feedback from the February 2020 meeting helped identify priorities for Wave 4 of measure development. These priorities included focusing on measures for specialties not currently covered by cost measures (e.g., physical therapy) and clinical areas such as mental and behavioral health. There are remaining specialty gaps for anesthesiology, diagnostic radiology, obstetrics/gynecology, optometry, pathology, and radiation oncology clinician specialties where they have limited episode- or population-based coverage.

Acumen outlined approaches to building out both the breadth of coverage (i.e., applying to more specialties) and the depth of coverage (i.e., covering more clinicians within a given specialty). Regarding the goal of increasing the breadth of coverage, we presented a summary of feedback from the Wave 4 public comment period about potential measure concepts and how to address challenges for clinicians currently without cost measures. We also outlined an approach to creating new measures that focus on the role of clinicians within existing measures. For example, a new measure assessing the cost performance of clinicians providing anesthesia services for joint repair could use much of what has already been developed for knee and hip

arthroplasty measures. Another source of information that can inform new measures is frequently billed services. These can be examined by specialty to identify clinicians' central areas of care. For instance, optometrists and obstetricians/gynecologists most frequently perform general ophthalmological services and screening services, respectively. Regarding the second goal of increasing depth of coverage, Acumen presented results for the share of clinicians within a given specialty having cost measures by adding more measures.

Acumen presented the following discussion questions:

- Given the set of measures developed/under development and the goals of building both the breadth and coverage of cost measures, what clinical areas should be prioritized for Wave 5?
- Public comment suggested focusing on costs following incidental findings as a measure for diagnostic radiology. What proxies could be used to identify incidental findings, given the limitations of claims data?
- Should the approach of adapting existing measures to capture the role of other clinicians involved in that type of care be used to create cost measures for specialties that currently are not covered by any cost measure?
- What are some potential measurement areas for other specialties with limited cost measures (e.g., optometry, obstetrics/gynecology)?

2.2.2 TEP Member Discussion

Members emphasized the importance of focusing efforts on high-cost conditions and procedures with large variation in cost. One member noted the importance of considering how cost measures would best improve care for patients, and of avoiding the pitfall of creating measures for the sake of measurement. Acumen noted that while measure development has been primarily focused on high-cost areas in the past, another priority is to include clinicians who do not currently have cost measures in MIPS. Some members highlighted challenges with creating measures for hospital-based clinicians such as anesthesiologists, radiologists and pathologists, because often the services they provide are under the control of the ordering clinician and the costs attributable to these clinicians providing services at the request of other clinicians have little variation. TEP members agreed that decisions made by these providers influence decision-making and spending downstream, which can complicate episode attribution. A few members noted that it would be important to ensure that there is sufficient cost coverage and variation to make measure development worthwhile.

The TEP expressed the need for caution for the approach of creating new measures based on the role of clinicians currently providing care under existing measures. Some members advised that Acumen would need to ensure the risk adjustment model will work equally well for

all attributed clinicians across different specialties. One members suggested testing the correlation between the complementary measure and the surgical measure. Some members were concerned that roles are not cleanly divided between specialties, and may cause errors in attributing costs. As a solution, one member suggested bundling multiple specialties into one measure. However, there would also be benefits to this approach, such as to encourage clinicians who provide services that are ancillary to another procedure to become more involved in the patient's care pathway.

Members discussed considerations for various specialties that had been highlighted as specialty gaps. For obstetrics/gynecology, a member noted that areas with the greatest variability was pregnancy-related care, although these would be uncommon in the Medicare population: hypertensive disease of pregnancy, pre-term labor, pelvic inflammatory disease and Hyperemesis Gravidarum. However, post-menstrual disorders would be more likely in the Medicare population, with one member noting that there have been significant changes in the frequency of Pap smear screenings for older women.

For clinicians providing anesthesia care, the TEP suggested exploring pain management services (e.g., injections). Members noted that injections are high-cost services, which could represent areas for cost improvement. A few members noted that anesthesiologists and certified registered nurse anesthetists (CRNAs) would play an important role in pain management for the Wave 4 Low Back Pain measure.

Members also discussed how to address the measurement gap for diagnostic radiology, building on the comments received during the Wave 4 public comment period. One member suggested that a mammography screening episode could begin with an initial screening, be reaffirmed by recall and/or follow-up, and end with annual screenings or a diagnosis of cancer. Acumen raised concerns of heterogeneity in case severity, but the member stated that recall rates do not differ substantially across different populations. Additionally, members suggested how to identify incidental findings by using diagnosis codes as proxies; a member noted that using CPT codes to capture incidental findings created noise and suggested using ICD-10 diagnosis codes instead. For example, a lumbar spine MRI often incidentally images the pelvis and abdomen; if this MRI is followed by an abdomen, renal or pelvic ultrasound with a diagnosis of an extra spinal finding, this could be used to define the incidental finding. This could also apply to mammography, one of the suggested measure topics from the Wave 4 public comment period. The TEP noted that this approach of using newly occurring diagnoses after a scan seemed promising as a proxy for medical records, but that it would be challenging and require much testing.

Members discussed the idea of using appropriate use scoring in measures that focus on the role of diagnostic radiologists. Appropriate use metrics could be helpful in managing incidental findings by evaluating a service or procedure before it is ordered. Several members suggested using a low appropriateness score to identify cases that should not have been admitted to the hospital to avoid an episode trigger. One of those members, however, conceded that this approach may be too complex, and preferred the approach of analyzing services and ICD-10 codes. Although one member suggested risk adjusting or stratifying for imaging with a high appropriateness score, there was concern among members that if inappropriate tests counted towards a low score, there would be disincentives to order or perform a service in the future. Members also noted that mammography is not included in the appropriate use criteria.

2.2.3 Key Takeaways

- The TEP recommended prioritizing measures that address high cost conditions and procedures with large variation in cost. Some types of clinicians may have little variation in practice patterns or cost; for example, hospital-based clinicians including radiologists, anesthesiologists and pathologists likely would have little variation because costs are determined by the hospitals.
- Members highlighted the challenges with attribution and defining assigned services for clinicians who provide services when ordered by another clinician. It would be difficult to parse out services that are related to the role of different clinicians, such as a surgeon performing a procedure and the anesthesiologist or CRNA providing anesthesia services during the procedure.
- The TEP noted that pain management was a potential area to explore for anesthesiologists and CRNAs as these include high-cost services (e.g., injections). The Wave 4 Low Back Pain measure could be an opportunity to capture this pain management role.
- Members suggested focusing on post-menstrual disorders in the measure for obstetrics/gynecology. One member suggested including Pap smear screenings in a measure to standardize frequency of screenings among older women.
- Members discussed the details surrounding a mammography screening episode for diagnostic radiologists and recommended using the timing of service and diagnosis information to identify incidental findings (e.g., newly occurring cancer diagnoses after a scan). In addition, there were concerns that risk adjusting or stratifying for appropriate use scoring would lead to disincentives in ordering or performing a radiology service.

2.3 Approaches to Cost Measurement Calculation

This session explored an alternative method of calculating cost measure scores that could focus on more meaningful differences in performance. Section 2.3.1 provides a summary of

Acumen's presentation, Section 2.3.2 summarizes the TEP's discussion, and Section 2.3.3 highlights key takeaways.

2.3.1 Summary of Presentation

Stakeholders have expressed concerns that the MIPS cost measure score may not appropriately reflect the performance of providers. Specifically, providers with more complex patients are more prone to large swings in cost, and isolated high-cost events can have a disproportionate impact on providers' scores. Acumen believes that some aspects of the current scoring method can be modified to better reflect the true underlying performance of providers.

Underpinning the current scoring approach is the use of risk adjustment model to generate an expected cost for each episode based on the observed risk profile of the patient. One limitation of risk adjustment is that it neutralizes the difference in average cost but not the difference in variability. For example, high-risk patients (measured by clinical complexity or severity) are known to have both higher observed cost and higher variability in observed cost. While risk adjustment can make risk-adjusted cost for high-risk patients similar to low-risk patients, the differences in the variability of cost for across risk profiles remain.

The consequence of this remaining difference in variability is that, after risk-adjustment, high-risk patients are represented at higher frequency in the high risk-adjusted cost deciles. Therefore, providers treating high-risk patients are more prone to having lower scores. Less intuitively, high-risk patients are also represented at higher frequency in the low risk-adjusted cost deciles. Providers treating low-risk patients can find it more difficult to score in the top performance ranking.

Acumen proposed a method to take into account the variability of cost for each given risk profile by defining cost categories that represent meaningful performance levels. The expected cost is also defined based on the cost category and how often different performance levels are achieved by peers treating similar patients. The proposed score will reflect the fraction of episodes in each cost category. This proposed method has two main advantages: (i) it reduces large swing in score for more complex patients by accounting for how often different levels of performance are achieved by peers, and (ii) it considers variation within each category as noise and not meaningful performance difference that can reduces the disproportional influence of rare high cost events.

Acumen presented the following discussion questions:

- Would the revised approach address stakeholder critiques in this area effectively?
- Is the revised approach more intuitive for clinicians to understand their cost performance?

- What do clinicians consider to be meaningful differences in performance and would the revised approach more likely capture this?
- How should we assess the tradeoff between complexity of measure calculation and the addressing of stakeholder critiques?

2.3.2 TEP Member Discussion

The discussion mainly focused on exploring the details of the methodologies, accounting for health inequities, and feedback on the proposed method. Members discussed the reasoning behind the counterintuitive phenomenon that high-risk patients more often have lower risk-adjusted costs than low-risk patients. Acumen clarified that, while the observed costs for high-risk patients remain higher than for low-risk patients, the risk-adjusted costs of high-risk patients are more often lower than their expected costs predicted by the risk adjustment model. The shape of the cost distribution is the main driver of this phenomenon because the risk adjustment was only able to neutralize the difference in average expected costs, but not the difference in variability.

Members noted that there are circumstances in which the relationship between patient risk and cost is non-linear that could potentially explain why high-risk patients appear less costly, such as including partial observations or censored observations in the cost measures. Acumen confirmed that patients who died or received hospice care during a performance period were not included. Acumen also clarified that the illustrations presented was based on simulated data to highlight the statistical phenomenon. One assumption made in the simulation was that the providers had equal performance, which is untrue, to isolate the statistical phenomenon driven solely by the difference in the cost variability across patient risk profiles.

Acumen highlighted that, in addition to risk adjustment, there are other tools in the current scoring methodology that also take into account the non-linear relationship, such as the inclusion of only clinically related cost and sub-grouping of the population into distinct subsets with their own risk adjustment models. The approach that Acumen proposed can also handle a non-linear relationship by allowing the expected cost to be defined individually for each risk profile and performance level.

Additionally, TEP members discussed how to account for health inequities due to social risk factors at length in this section. Members noted that social risk factors could influence cost of care outside of the control of the providers. Acumen had found that further adjusting for social risk factors did not have a large effect on providers' performance in a recently published

research¹. Nonetheless, Acumen believes that the proposed method can account for patient risk more effectively than the current risk adjustment.

Members agreed that the proposed method may account for patient risk better in scoring providers than the current approach, which partially relied on the MIPS Complex Patient Bonus and members understood this to be a temporary fix. Members also made connections to a similar stratification of readmission risk method, which was perceived to be an appropriate approach because it incentivizes hospitals to compete within each strata of social determinants of health.

Finally, members discussed that not all variation should be adjusted. Members advised Acumen to pay attention to the choice of cost categories in the proposed method so that meaningful differences in providers' performance are captured without being too sensitive to negligible variations in treatment decisions. A minimum of five categories was suggested to be a reasonable number of cost categories.

2.3.3 Key Takeaways

- Members were supportive of the new proposed scoring approach. They appreciated that
 the proposed measure calculation directly accounts for patient complexity, instead of
 relying on the MIPS Complex Patient Bonus.
- Members noted two areas of potential concerns: (i) how to choose the number of cost
 categories so that meaningful differences in providers' performance are captured without
 being too sensitive to negligible variations in treatment decisions; and (ii) if social
 determinants of health and health equity still influences measure scores in this new
 approach.
 - Members suggested using at least five cost performance buckets or categories to address concerns that using a rank value to assess performance could lead to a reduction in the ability to detect meaningful differences.

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¹ Sandhu, A.T., et al. "Adjustment for Social Risk Factors Does Not Meaningfully Affect Performance on Medicare's MIPS Clinician Cost Measures". *Health Affairs* (2020).

NEXT STEPS 3

The input provided by this TEP, along with input from other stakeholders, will provide guidance to Acumen on new measure development and measure maintenance. We will explore the simplification of service assignment rules, which members had noted are currently highly complex and could benefit from simplification to improve the accessibility of this information to clinicians, improve consistency across measures, and guard against unintended consequences that result from the inherent variability in coding practices. This can begin to be implemented for the Wave 4 measures currently under development and could be an area to address in routine measure maintenance or future comprehensive re-evaluation, with further testing on performance comparisons under the current and simplified measures.

Acumen will consider the TEP's feedback on how to develop measures to address specialty gaps in future development waves, such as Wave 5 which is scheduled to begin in 2022. We will continue to keep the TEP's guiding principle established through previous meetings that prioritization should focus on high-cost areas with variation in cost performance, as these conditions and procedures are where there are the greatest opportunities for improvement in value. The two clinical areas that the TEP discussed in the most detail were measures for diagnostic radiology, and anesthesiologists and CRNAs. The Wave 4 Low Back Pain measure may offer an opportunity to capture some of the latter specialties' care.

Finally, Acumen will review the TEP's feedback with the CMS to continue discussions about the alternative scoring approach in light of members' support. There are remaining questions about how to determine the number of performance categories, consistency across measures, and how to communicate this alternative method to clinicians. Acumen will provide updates regarding the refinement and the implementation of this proposed method to the TEP at subsequent meetings.

4 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
Anita Bemis-Dougherty, PT, DPT, MAS	Vice President, Clinical Practice, APTA	American Physical Therapy Association, Alexandria, VA
Kathleen Blake, MD, MPH	Vice President, Healthcare Quality	American Medical Association, Washington, DC
Akinluwa (Akin) Demehin, MPH	Director of Policy	American Hospital Association, Washington, DC
Kurtis Hoppe, MD	Physician	American Academy of Physical Medicine and Rehabilitation, Rochester, MN
Caroll Koscheski, MD, FACG	Gastroenterologist	American College of Gastroenterology, Hickory, NC
Alan Lazaroff, MD	Physician	American Geriatrics Society, Centennial, CO
*Shirley Levenson, PhD, FNP-BC, PMHNP-BC	Nurse Practitioner	American Academy of Nurse Practitioners, Caldwell, TX
Robert Leviton, MD, MPH,	Associate Chief of Emergency	American Medical Informatics
FACEP, FAMIA, ABPM-CI	Medicine	Association, Mamaroneck, NY
*Edison Machado, MD, MBA	Chief Strategy Officer	American Health Quality Association, Lake Success, NY
James Naessens, MPH, ScD	Professor of Health Services Research	Mayo Clinic, Rochester, MN
Shelly Nash, DO, FACOOG	Senior Vice President, Chief Medical Information Officer	Fresenius Healthcare North America, Altamonte Waltham, MA
Diane Padden, PhD, CRNP, FAANP	Nurse Practitioner	American Association of Nurse Practitioners, Austin, TX
*Parag Parekh, MD, MPA	Ophthalmologist	American Society of Cataract and Refractive, Surgery Dubois, PA
David Seidenwurm, MD, FACR	Neuroradiologist and Quality Director	American College of Radiology, Sacramento, CA
Mary Fran Tracy, PhD, RN, APRN, CNS, FCNS, FAAN	Associate Professor	National Association of Clinical Nurse Specialists, Minneapolis, MN
Janice Tufte	Patient Advisor	Society for Participatory Medicine, Seattle, WA
Ugochukwu (Ugo) Uwaoma, MD, MBA, MPH, FACP	President of the Medical Group and Provider Services	Trinity Health of New England, Hartford, CT
Danny van Leeuwen, RN, MPH	Patient Advisor	Health Hats, Arlington, MA
Michael Wasserman, MD, CMD	Geriatrician	California Association of Long Term Care Medicine, Newbury Park, CA
Adolph Yates, Jr., MD	Academic Orthopaedic Surgeon	American Association of Hip and Knee Surgeons, Pittsburgh, PA

^{*}Denotes members who were unable to join the meeting.

5 APPENDIX B: PCMP COST MEASURE PROJECT TEAM

The Acumen measure development team is multidisciplinary and includes individuals with knowledge and expertise in the areas of cost measure development, clinician payment policy, health economics, clinical practice, pay-for-performance, and value-based purchasing and quality improvement. The following 13 individuals from the project team attended the TEP:

- Sri Nagavarapu, Co-Project Director
- Joyce Lam, Project Manager
- Rose Do, Clinical Lead
- Laurie Feinberg, Clinical Lead
- Eugene Lin, Clinical Associate and Moderator
- Heather Litvinoff, Clinical Associate
- Sam Bounds, Associate Research Manager
- Binglie Luo, Associate Research Manager
- Nastia Biriuchinskaia, Policy Lead
- Ross Jensen, Data & Policy Analyst
- Elizabeth Peters, Data & Policy Analyst
- Taylore Fox, Data & Policy Analyst
- Mahasweta Mitra, Data & Policy Analyst