Kidney Transplant Management Workgroup Webinar Meeting Summary

MACRA Episode-Based Cost Measures: Clinician Expert Workgroups
Workgroup Webinar, July 27, 2022
September 2022

Contents

Project Overview

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop episode-based cost measures for potential use in the Merit-based Incentive Payment System (MIPS) to meet the requirements of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Acumen's measure development approach involves convening clinician expert panels to provide input in cycles of development ("Waves").[1] In Wave 5, we obtained input on candidate clinical areas and episode groups through a public comment period from February 18, 2022, to April 1, 2022.[2] This approach provided flexibility for a wider range of interested parties to participate around their schedule. The prioritization criteria used to identify strong candidate episode groups and concepts were developed based on input from our technical expert panel (TEP), Person and Family Engagement (PFE), Clinical Subcommittees (CS), and Clinician Expert Workgroups ("workgroups"). The following Wave 5 episode groups were finalized based on the prioritization criteria, public comments received, and discussions with CMS: (i) Kidney Transplant Management, (ii) Prostate Cancer, and (iii) Rheumatoid Arthritis.

We held a nomination period for workgroup members between June 3, 2022, and July 1, 2022. The workgroups are composed of clinicians with expertise directly relevant to the selected episode groups. Workgroups (of about 15-20 members) were finalized in July 2022, and they provided detailed input on the development of the selected episode groups during their first workgroup webinars from July 26 to 28, 2022. For Wave 5, all workgroup meetings will be held

[1] For information on measure development in Wave 4, refer to the Wave 4 Measure Development Process document (https://www.cms.gov/files/document/wave-4-measure-development-process-macra.pdf).
[2] For a summary of comments we received during the public comment period, refer to the Wave 5 Measure Development Public Comment Summary Report (https://www.cms.gov/files/document/wave-5-public-comment-summary-report.pdf).

virtually. The workgroups will convene for a second and third meeting to continue measure specification and refinement discussions before and after a national field test, which is currently slated for early 2023.

Kidney Transplant Management Workgroup Webinar, July 27, 2022

This meeting summary document outlines the purpose, discussion, and recommendations from the Kidney Transplant Management workgroup webinar. Section 1 provides an overview of the webinar goals and process. Section 2 summarizes the discussion and recommendations from the workgroup. Section 3 is an appendix that describes the materials and information provided to workgroup members prior to and at the beginning of the webinar as preparation for discussion on detailed measure specifications.

1. Overview

The goals of the Kidney Transplant Management workgroup webinar on July 27, 2022, were the following:

(i) Provide input to specify a cost measure for potential use in MIPS that can accurately distinguish between good and poor performance among clinicians in terms of cost efficiency
(ii) Consider results of empirical analyses and the Person and Family Partner (PFP) findings
(iii) Provide input on how to define the patient cohort, account for sub-populations to ensure that the measure allows for meaningful clinical comparisons, and identify clinically related services

The meeting was held online via webinar and attended by 12 of the 14 workgroup members. The webinar was facilitated by Acumen moderators, Kevin Erickson and Eugene Lin. The Kidney Transplant Management workgroup chair was Krista Lentine, who also facilitated meeting discussions. Derek Forfang and Keisha Payton were the PFPs that attended the webinar to discuss and address questions regarding the PFP findings. The MACRA Episode-Based Cost Measure Workgroup Composition List will contain the full list of members, including names, professional roles, employers, and clinical specialties; it will be posted on the MACRA Feedback Page.[3]

All interested parties beyond the workgroup members had access to a public dial-in number to observe the meeting as part of Acumen's continued effort to increase the transparency of the measure development process.

Prior to the webinar, workgroup members were provided with information and materials to inform their meeting discussions (see Section 3). After the webinar, workgroup members were sent a recording of the webinar and polled on their preferences to ensure the measures are developed based on well-documented input. Based on National Quality Forum practices, the threshold for support was >60% consensus among poll responses. This document summarizes the workgroup members' input from both the discussion as well as the polls.

[3] The composition list will be posted on the MACRA Feedback Page (https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback).

This meeting was convened by Acumen as part of the measure development process to gather expert clinical input; as such, these are preliminary discussions and materials, which don't represent any final decisions about the measure specifications or MIPS.

2. Summary of Sessions and Discussion

This section is organized based on meeting sessions and describes workgroup member discussions and recommendations. The first sub-section summarizes the PFP findings discussed during the webinar. The remaining sub-sections describe workgroup member discussions and recommendations on defining the patient cohort, accounting for patient heterogeneity, and identifying clinically related services, respectively. The final sub-section provides an overview of next steps for the measure development process.

2.1 Person and Family Partner (PFP) Findings and Discussion

We conducted focus groups and interviews with 4 PFPs to gather input that would inform cost measure development for kidney transplant management. During the webinar, 2 PFPs shared these findings and fielded questions from workgroup members.

PFPs reported that planning for a kidney transplant began very early (e.g., as soon as they started dialysis). For some, this was as a young adult or child. They reported varying times with a functioning transplant from 9 to 21 years so far. Several PFPs had had multiple transplants, while another is waiting for a new transplant. Their transplants were from both living and deceased donors.

While transplant nephrologists were seen as the primary responsible clinician, PFPs reported nephrologists, nephrology surgeons, cardiologists, endocrinologists, dermatologists, psychologists, gastroenterologists (for complications), registered nurses and nurse practitioners, and clinical educators as critical to their care team. Shortly after surgery, pharmacists and dieticians were reported as key to managing medication and lifestyle changes with the transplant. Regular care for kidney transplant management consisted of regular laboratory tests and medication infusions. Some complications reported by the PFPs included autoimmune dysfunction, heart attack, or interactions with comorbidities, such as diabetes.

PFPs reported communication and holistic management as key indicators of quality. They expressed appreciation for instances where their managing clinician(s) considered patient priorities and personal goals in care decisions, and where they shared information in a timely manner. Some examples included explaining the relationship between lifestyle and lab results, or timely calls updating patients and families on changes to their medication.

Challenges to quality care included poor communication between care teams based at the transplant center and those from clinic, or the burden of coordinating care by themselves. PFPs also reported limitations in access to certain drugs or in receiving care due to distance.

2.2 Defining the Patient Cohort

Acumen reviewed the methodology for constructing an episode-based cost measure, with a focus on "triggering an episode." Cost measures for chronic conditions aim to identify a longitudinal patient-clinician relationship (i.e., trigger an episode of care for that condition) using the presence of related service and diagnosis codes on claims billed by the same provider (as identified by their Tax Identification Number [TIN]). The workgroup discussed these categories of service and diagnosis codes in the context of what patient and clinician populations they would capture, and to what degree they would reliably indicate an ongoing care relationship.

The following paragraphs summarize discussion of the draft measure specifications, appropriate target scope of the measure, and what service and diagnosis codes should be used to identify the target population.

In the draft Kidney Transplant Management measure, episodes are triggered when the same TIN bills Medicare one trigger claim (billing for any outpatient evaluation & management or kidney education code) and one confirming claim (billing any trigger service, or transplant medication, laboratory test, or antibody treatment) within 180 days. Both of these claims must have at least one qualifying International Classification of Diseases, 10th Revision (ICD-10) diagnosis code to indicate that the patient is receiving kidney transplant-related care. The draft specifications check against the Renal Information Management System (REMIS), which contains the dates of all kidney transplants since 1988. There are also checks to remove beneficiaries from the measure when they experience renal failure, indicated by the Medicare 2728 form. Acumen asked the workgroup to review the triggering methodology, as well as these services and diagnoses, to discuss how the draft specifications may be improved.

Workgroup members asked some clarifying questions about the specifications. First, some were curious what period after a transplant operation the cost measure would target, whether it be immediately post-operation, or strictly afterwards. The measure targets the ongoing outpatient management of a kidney transplant, which can be identified at any time post-operation. Acumen shared findings showing that only 11% of episodes include any care between 0 and 30 days after the operation. Panelists also asked about the target provider population, especially for a clinical area where care is overwhelmingly team-based. A large majority of MIPS participants report at a clinician group (TIN, rather than by National Provider Identifier [NPI]) level. For clinicians who choose to report as TIN-NPIs, chronic condition episode-based cost measures in MIPS use a 30% threshold where only individuals who furnish 30% or more of trigger/confirming services during the episode would be attributed. On the other hand, if a patient sees multiple clinician groups for their care, each of those groups would be attributed their own episode of care if they meet this trigger logic.

With regard to constructing an episode of care for kidney transplant management, the workgroup emphasized the differences in care between the post-operative period and longer-term ongoing management. There was strong verbal consensus that the first 90 days after a transplant operation contains more complex and variable services than longer-term outpatient management of a transplant. In light of these clinical differences, and given that 90 days is the “global period” for major operations under Medicare (when physicians may not bill for related office visits), the workgroup concluded that it would be appropriate to trigger episodes of care only after 90 or more days have elapsed since the beneficiary’s operation. This point of agreement was mirrored by the general support for targeting outpatient management rather than inpatient care in the measure.

Discussion then turned to which services indicate a longitudinal patient-clinician relationship for kidney transplant management. One member shared that long-term ongoing care would involve transplant center coordination with outpatient clinicians (e.g., to monitor lab results). There was strong verbal support for the categories that Acumen shared (i.e., outpatient evaluation & management, kidney education, antibody to human leukocyte antigen [HLA], laboratory codes for renal function panels, urinalysis, and albumin or creatinine testing, and transplant-related medications like mycophenolate or azathioprine).

Much of the discussion centered on the role of laboratory codes in signifying a relationship. One member noted that, after an evaluation & management visit, codes for laboratory tests that were

ordered as part of that initial visit may be billed up to a month later. Such an event may trigger an episode off of only one base encounter, while the methodology intends to capture 2 fully distinct encounters with the same provider. The workgroup mentioned that Acumen and CMS could consider a minimum period of time between the trigger claim and some confirming claims to avoid this.

The workgroup also discussed the various roles that laboratory tests can play in care. They could indicate ongoing surveillance, diagnosis of an acute issue, or evaluation of a patient's response to an intervention. One member noted that ordering these tests is often an "if-then" phenomenon, where the decision to order one test depends on the results of a previous one. As the Kidney Transplant Management measure aims to capture all ongoing management, these considerations don't impact the draft list of codes.

Some services were suggested for inclusion. Allograft surveillance, immunosuppression care and monitoring, and monitoring for calcineurin inhibitors, mycophenolic acid, and mammalian target of rapamycin levels were all raised as potential services to include in the trigger list. One workgroup member also suggested that medication codes could be included in the set of trigger codes along with confirming codes. In terms of diagnoses to add to the list, the only suggested code was ICD-10 code D84.421 (immunodeficiency due to drugs).

Key Takeaways from Discussion and/or Polls for Defining the Patient Cohort:

- Members approved the draft set of trigger service and diagnosis codes, and confirmed the suggested addition of diagnosis code D84.421
- Workgroup members voted to test a minimum window between outpatient evaluation & management claims and either lab or medication codes
- Members voted to include medication codes in the set of trigger claims, as well as confirming claims
- The workgroup confirmed verbal consensus to trigger episodes only after at least 90 days have elapsed since the beneficiary's kidney transplant

2.3 Accounting for Patient Heterogeneity

Acumen presented their approach to address variation in cost performance due to patient features such as comorbidities, enrollment, or social determinants of health. All episode-based cost measures use risk adjustment to account for clinical complexity. The default model is the CMS-Hierarchical Condition Category (CMS-HCC) model version 22 (V22), although future measures may update the model to V24. This model has 79 variables for comorbidities based on the beneficiary's claims history, as well as indicators for age and Medicare enrollment status; cost measures also include additional measure-specific risk adjustors as recommended by the workgroup. During the webinar, the workgroup and moderators reviewed the 3 options for addressing heterogeneity:

- Stratifying the patient population into mutually exclusive and exhaustive sub-groups to define more homogenous patient cohorts[4]

[4] Sub-grouping is a method that's intended for when we would want to compare episodes only with other similar episodes within the same sub-group. This approach is used when sub-groups are very different from one another, and each sub-group requires its own risk adjustment model. Since each sub-group will have its own risk adjustment model, the size of each sub-group should be sufficiently large.

- Defining covariates in the risk adjustment model[5]
- Identifying measure exclusions[6]

Acumen also shared that effective risk adjustors should be present at the start of care, exhibit a clinical or conceptual relationship with cost, vary in prevalence, be resistant to manipulation or gaming, and not be redundant with other variables.

The workgroup collectively suggested a large number of sub-populations. The following bullets summarize the suggested sub-populations and their associated rationale for adjustment, and sub-sections 2.3.1 through 2.3.3 describe the discussions on non-claims or enrollment-based sub-populations, episodes ending in renal failure, and social risk factors (SRFs).

- There was some agreement that the first year after a transplant operation should be adjusted, relative to later periods. This is because kidney transplant patients in their first year post-operation are at higher risk of complications like BK nephropathy or cytomegalovirus (CMV), and they generally require more intensive immunosuppression management than in subsequent years, when the graft becomes more stable. One member did note that clinicians can still influence the cost for these first-year patients through, for example, immunosuppression management.
- Evidence of BK virus nephropathy, CMV infection, or glomerulonephritis prior to the episode were all raised by members as potential adjustments. The former 2 complications, both common opportunistic infections, may also be adjusted for beyond the normal 120-day window, if the measure uses data from the United Network for Organ Sharing (UNOS; see below).
    - One member shared that the managing clinician can influence the costs associated with BK nephropathy, even if the condition isn't always predictable or preventable.
- Members commented that patients with prior kidney transplants should be risk adjusted due to their clinical complexity. On the other hand, 2 members also raised that a "pre-emptive transplant," or cases where a patient receives a kidney transplant before receiving dialysis, could also be adjusted for because they're healthier.
- Patients with atypical hemolytic-uremic syndrome (requiring eculizumab, a very expensive biologic), high antibody titers, and recurrent lupus nephritis were raised as potential exclusions or risk adjustors because of their high cost.
- Acumen shared that CMS has recently approved a specialty adjustment for implementation in all chronic condition episode-based cost measures. This was motivated by performance differences in clinician groups based on their specialty compositions. Workgroup members expressed some support for this approach.

2.3.1 Adjustments Based on UNOS Data

Many important indicators of a patient's risk aren't visible in claims, which has motivated Acumen's request for UNOS data, a dataset containing a wealth of information on

[5] Risk adjusting is a method to account for the case-mix of patients and other non-clinical characteristics that influence complexity. It's meant to be used for sub-populations that make a large share of patients who have a characteristic that's outside of the attributed clinician's reasonable influence. Risk-adjusted cost measures compare observed episode spending to an expected episode spending (predicted by a risk adjustment model).

[6] Excluding is a method in which we exclude certain patients or episodes to address issues with patient heterogeneity. This approach should be used when the sub-population affects a small, unique set of patients in which risk adjustment wouldn't be sufficient to account for their differences in expected cost.

characteristics of transplants, donors, and recipients since 1987. These include basic demographic information, records of acute events near the time of transplant, laboratory test results that indicate transplant quality, and other variables that can help predict the likelihood of transplant failure or complications.

In terms of basic records that could indicate an appropriate adjustment, workgroup members raised the possibility of excluding patients who received a multi-organ transplant, such as kidney-pancreas of kidney-liver. Similarly, patients who have ever had a non-renal transplant could be flagged for risk adjustment because of the involvement of multiple specialties in immunosuppression. Many workgroup members supported adjustment for whether the kidney donor was living or deceased, as that's a significant indicator of organ quality. Finally, the beneficiary's waiting time prior to their kidney transplant was suggested for monitoring.

Several laboratory result-based indicators were raised as well. Baseline CMV characterization, low-grade viremia and nephropathy distinction, pre-transplant CMV serostatus, antibody and blood compatibility levels, and whether the donor was Hepatitis C-positive were all suggested. Many of these variables and more are included in calculations of Estimated Post-Transplant Survival (EPTS) score and Kidney Donor Profile Index (KDPI), which are validated indices for a transplant's risk of complications and/or failure.

If Acumen secures UNOS data prior to the next webinar, they'll include these sub-populations for testing and discussion with the workgroup.

2.3.2 Episodes Ending in Renal Failure

The workgroup discussed how the Kidney Transplant Management cost measure should address episodes of care with renal failure. The draft measure specifications terminate episodes on the date of transplant failure, based on the Medicare 2728 form. Members raised that inconsistencies in how clinicians interpret this question 23, "Date Regular Chronic Dialysis Began," might lead to unreliable estimates of a patient's date of renal failure. Multiple members also noted that kidney transplant recipients will often receive dialysis services for some period after the transplant, while the graft acclimates, and they unanimously agreed that this shouldn't terminate an episode. Acumen will test and update their program to ensure that this terminating condition is appropriately and consistently implemented.

The transition from kidney transplant failure to ongoing chronic dialysis is a costly process, and workgroup members agreed that while the Kidney Transplant Management measure should include this period to ensure accountability and incentivize smooth coordination of care, some adjustment should occur to mitigate care stinting. The workgroup agreed that it's an empirical question how close to the event of failure costs rise, which Acumen plans to investigate for an upcoming webinar. They also agreed that the managing clinician can influence these costs. There was some interest in sub-grouping episodes by their final year prior to renal failure, but this would lead to statistical issues due to the amount of data needed.

2.3.3 Social Risk Factors (SRFs)

Discussion also touched on SRFs, especially the influence of the beneficiary's geographic characteristics on cost. Kidney transplant recipients in rural areas have higher barriers to accessing care (e.g., longer distances to transplant centers). One workgroup member raised published literature on migrant workers who receive dialysis in an emergent setting, highlighting regional differences in access to kidney care. Multiple members expressed an interest in testing an adjustment for the beneficiary's Area Deprivation Index (ADI). One member cautioned about adjusting for SRFs; because some disadvantaged patients receive less care, they may have a

lower expected cost, in which case an adjustment could mask disparities in care (which may yield unintended consequences).

Acumen includes a suite of beneficiary-level SRFs in its routine testing on the measures, such as the Agency for Healthcare Research and Quality (AHRQ) socioeconomic status index, race, or dual eligibility in Medicare/Medicaid. They'll consider ADI as a sub-population for testing for the next webinar.

Key Takeaways from Discussion and/or Polls for Accounting for Patient Heterogeneity:

- Members voted to sub-group the Kidney Transplant Management measure by whether the donor was living or deceased
- Members recommended to exclude patients with co-occurring, non-renal transplants at the time of kidney transplant
- Members recommended to risk adjust for the following sub-populations:
    - Episodes that end in renal failure
    - Patients with multiple prior kidney transplants
    - Patients with prior non-renal transplant at a different time from their kidney transplant
    - Patients with a pre-emptive transplant (i.e., no dialysis prior to transplant surgery)
    - Patients with transplant surgery 365 or fewer days prior to the episode
    - Patients with evidence of any of the following prior to the episode:
        - Glomerulonephritis
        - CMV viremia
        - BK nephropathy
        - High antibody titers
    - The transplant's KDPI, and other aspects of the transplant:
        - Blood and antibody compatibility
        - Whether the donor was Hepatitis C+
    - The sub-populations that are also risk-adjusted in the draft CKD measure:
        - Frailty
        - Heart failure hospitalization within 120 days prior to the episode
- Members voted to monitor episodes for patients with evidence of atypical hemolytic uremic syndrome prior to the episode, as well as those with prior insulin use
- Members provided some input related to SRFs:
    - There was strong support for examining the ADI and dual eligibility in Medicare/Medicaid
    - Distance to transplant center was also raised as a factor for consideration

2.4 Identifying Clinically Related Services

Acumen described the purpose of service assignment so that members could discuss which services associated with the attributed clinician's role in managing the patient's care should be included in the cost measure. These assigned services should be inclusive enough to identify a measurable performance difference between clinicians but also not introduce excessive noise. Episode-based cost measures aim to only include clinically relevant costs whose occurrence, intensity, and/or frequency are within the reasonable influence of the attributed clinician. Service assignment can be an effective form of adjusting for patient risk by omitting unrelated costs not furnished for management of a kidney transplant.

Acumen shared the list of service categories that were voted on by the Chronic Kidney Disease/End-stage Renal Disease (CKD/ESRD) workgroup in 2021 for the CKD measure.[7] Kidney transplant management has some clinical similarities to CKD care; therefore, broadly mirroring the service assignment rules between the CKD and transplant management measures may be a reasonable approach. The draft CKD measure excludes vascular access and maintenance services to incentivize early preparation for ESRD, but it includes the following categories:

- Hospitalizations, outpatient visits, and emergency room visits related to:
    - Electrolyte abnormalities
    - Fluid overload
    - Calciphylaxis
    - Parathyroidectomy
    - Anemia and complications
    - Acute kidney injury
    - Heart failure
    - Hypertensive urgency and emergency care
    - Bone and mineral disease complications
- Routine lab tests
- Certain Part D drugs

With respect to Part D drugs, Acumen flagged that cost measures that include Part D drugs sub-group episodes by whether the beneficiary has Part D coverage to ensure fair comparison. Workgroup members raised that some immunosuppression drugs are covered by either Part B or Part D, which Acumen may address through an updated payment standardization methodology. Part D drugs will be discussed in greater detail at the next webinar along with other categories of services to assign.

Workgroup members agreed that the costs prior to renal failure and related to caring for BK nephropathy should be included. They also mentioned including medical nutrition therapy and cancer screening and potentially excluding certain expensive biologics.

One workgroup member commented on the "surveillance testing" service category, stressing that the frequency of services (e.g., cell-free DNA screening, blood work, and surveillance biopsies) drives cost, and that the service assignment rules in this measure should be appropriately granular to reflect only related care. One workgroup member also expressed concern that some patients require very expensive care. Acumen shared that these cost measures apply winsorization, such that all episodes scored as below or above a certain percentile (typically the 2nd and 98th) would be set to those predetermined limit values.[8] This method is in place to mitigate the impact of extreme outlier cases on a provider's score.

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[7] Acumen convened a Clinician Expert Workgroup to support development of a CKD/ESRD cost measure in MIPS in 2021, which will re-convene in 2023 after a national field test. The workgroup composition list and meeting summary from the first webinar are available on the MACRA Feedback Page at https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback.

[8] Winsorization aims to limit the effects of extreme values on expected costs. Winsorization is a statistical transformation that limits extreme values in data to reduce the effect of possible outliers. Winsorization of the lower end of the distribution (i.e., bottom coding) involves setting extremely low predicted values below a predetermined limit to be equal to that predetermined limit, and similarly for the higher end of the distribution involves setting extremely high predicted values above a predetermined limit to be equal to that predetermined limit.

Key Takeaways from Discussion and/or Polls for Identifying Clinically Related Services:

- Members recommended to use the same service assignment rules as the draft CKD measure with a plan to discuss additional categories specific to transplant care in the next webinar
- The workgroup voted not to include primary care services in the Kidney Transplant Management measure, but they voted to include all of the following categories:
    - Transplant rejection
    - Opportunistic infection
    - Immunosuppression medications
    - Complications related to immunosuppression
    - Complications from surgery
    - Dialysis access
    - Diabetes-related services
    - Surveillance testing

2.5 Next Steps

In the last session, Acumen provided an overview of the next steps. After the meeting, Acumen distributed the Workgroup Webinar Poll to gather input from members on the discussions held during the webinar. In this poll, we also asked workgroup members for their availability for the second webinar in either late September or early October 2022. Acumen will operationalize input for the measure specifications based on workgroup webinar discussion and poll results and will follow up with workgroup members with more information about the next steps in the measure development process.

3. Appendix: Overview of Workgroup Member Preparation and Shared Materials

3.1 Introduction

Section 3.2 provides an overview of materials shared with the workgroup members prior to the workgroup webinar, and Section 3.3 provides a recap of concepts of the measure development process presented by Acumen.

3.2 Overview of Meeting Materials

Prior to the meeting, workgroup members were provided with the following information to inform their discussions and votes:

- Agenda and Slide Deck, which was sent prior to the meeting and outlined the topics and process used for the webinar, including embedded empirical analysis results
- A Welcome Packet of materials providing an overview of Wave 5 of cost measure development and information on the measure frameworks
- A Chronic Condition Cost Measure Framework Overview, which provided an at-a-glance summary of the chronic condition measure framework and lists the initial set of draft codes used in triggering for the meeting analyses, as well as Hierarchical Condition Categories (HCCs) used in the base risk adjustment model
- Investigation workbooks sent prior to the meeting, which presented detailed findings from empirical analyses:
    - A Sub-Population Analysis, which provided data on the frequency and cost associated with a preliminary set of sub-populations informed by public comments received and deliberations among the Acumen clinical team
    - Service Utilization over Time Analysis, which lists the top 200 most frequent services for each claim setting across episodes for the draft version of the measure along with various metrics regarding those services (e.g., share of episodes with that service, average cost of the service per episode, share of attributed clinicians who furnished the service).

The materials shared were based on analyses run on draft measure specifications that the Acumen clinical team created based on input from the Wave 5 measure development public comments and discussions with CMS.

3.3 Overview of Cost Measure Development

At the beginning of the meeting, Acumen presented an introductory session on the following topics:

- The activities done to date for the development of episode-based cost measures, including the Wave 5 measure development public comment period
- The goals of the meeting and timeline of activities for Wave 5
- A recap of the Quality Payment Program and episode-based cost measures for MIPS
- A recap on the different sources of information for the workgroup to consider in addition to their clinical expertise, including analyses and data, a literature review, and findings from the PFPs