Improving the Diagnostic Performance of Screening Tests for Breast Cancer
Technical Expert Panel (TEP) Meeting #2

October 2023
PROJECT OVERVIEW

Acumen, LLC has been awarded a grant by the Gordon and Betty Moore Foundation’s Diagnostic Excellence Initiative (grant number GBMF11507) to develop measures that can assess the quality and improve the value of breast cancer screening. Acumen’s measure development approach involves convening a Technical Expert Panel (TEP), composed of clinical experts, as well as patients, caregivers, and patient advocates, to contribute direction and thoughtful input during measure development. The measure development content is solely the responsibility of the authors and does not necessarily represent the views of the Moore Foundation.

The application of clinically accepted metrics in breast image quality and interpretation have been associated with improved outcomes. This project will link current practice standards to policy initiatives by creating a cohesive set of measures based on the Breast Imaging Reporting and Data System (BI-RADS) Atlas®. This will allow radiology practitioners to assess performance, value, and outcomes; engage in national policy; and work towards achieving a national standard for diagnostic excellence.

Acumen is developing four clinician-level measures – three quality measures and 1 episode-based cost measure – to assess performance of breast imaging teams using Medicare administrative claims. Together, these could provide a cohesive set of measures for a MIPS (Merit-based Incentive Payment System) Value Pathway (MVP) to reward diagnostic excellence, currently infeasible without outcome or cost measures. Accordingly, we plan to submit the measures through the Centers for Medicare & Medicaid Services (CMS) pre-rulemaking process for consideration for use in MIPS, with the intention of them filling critical measurement gaps now present.

We convened a TEP to provide input on the specifications of the measures. This is part of the measure development process, as defined by the CMS Measurement Management System (MMS) Blueprint, to gather expert clinical input and individual experience of person and family partners. Acumen held a call for nominations between December 14, 2022 and January 16, 2023. Our team notified interested parties via email, and collected nominations through an online survey. A panel of 14 TEP members was finalized mid-January 2023 to provide a balanced and diverse set of perspectives. This includes clinicians with expertise directly relevant to breast cancer, as well as Person and Family Partners (PFPs), people with lived experience of breast cancer screening, diagnosis, and treatment. The TEP met virtually on January 20, 2023 and again on October 27, 2023, and will meet one more time in Spring 2024 to refine and finalize measure specifications.
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1 OVERVIEW

This meeting summary document outlines the purpose, discussion, and recommendations from the Improving the Diagnostic Performance of Screening Tests for Breast Cancer TEP meeting #2. The goals of the Improving the Diagnostic Performance of Screening Tests for Breast Cancer TEP meeting on October 27, 2023 were the following:

(i) Gather input from the TEP on the measure specifications for the three quality measures, including: (i) attribution; (ii) measure numerators and denominators; and (iii) time intervals between different services;

(ii) Gather input from the TEP on the measure specifications for the episode-based cost measure, including: (i) triggering, episode window, and attribution; (ii) accounting for patient heterogeneity among different sub-populations of interest; and (iii) service assignment.

The meeting was held virtually and attended by 10 of the 14 TEP members. The meeting was facilitated by the moderator, Heather Litvinoff, and the TEP Co-Principal Investigator, David Seidenwurm. Appendix A provides the list of TEP members and the Acumen project team. Prior to the meeting, TEP members were provided with the agenda and slides to review prior to the meeting to maximize time for discussion.
2 SUMMARY OF SESSIONS AND DISCUSSION

This section is organized based on the meeting sessions and describes TEP discussions and recommendations. Section 2.1 provides a recap of the project overview presented during the meeting. Section 2.2 discusses the PFP findings. Session 2.3 covers the discussion on the specifications of the three quality measures. Section 2.4 summarizes the discussion on the cost measure specifications.

2.1 Project Overview

Acumen recapped an overview of the project and how the measures meet CMS needs and priorities. The goal of the project is to develop a set of clinical quality and cost measures on breast cancer screening and diagnosis, with the intent of submitting them to MIPS. The clinical topic of breast cancer screening is the focus of this measure development project as it represents a current gap in MIPS. Radiologists, as non-patient facing clinicians, have been identified by CMS as a priority for measure needs. The literature identifies variation in practice, clinical guidelines, and breast audit standards. Aligning clinical best practices and payment policy has potential to improve patient outcomes and experience and improve health care value.

Acumen presented the three quality measures and one cost measure in development that would provide more meaningful ways to assess the performance of radiologists than the measures currently available in MIPS:

- **Breast Cancer Screening Recall Rate Quality Measure (Outcome):** Percentage of women 40 years of age and older who had a positive screening mammogram.\(^1\)

- **Breast Cancer Screening with an Eventual Breast Cancer Diagnosis: Positive Predictive Value (PPV) 1 Quality Measure (Outcome):** Percentage of women 40 years of age and older who had a positive screening mammogram that led to an eventual breast cancer diagnosis.\(^1\)

- **Use of Biopsy After Diagnostic Follow-up with an Eventual Breast Cancer Diagnosis: Positive Predictive Value (PPV) 3 Quality Measure (Outcome):** Percentage of women 40 years of age and older who had a biopsy from a diagnostic follow-up that resulted in an eventual breast cancer diagnosis.

- **Breast Cancer Screening Episode-Based Cost Measure:** Costs of services that are clinically related to the attributed clinician’s role in managing care during each episode, starting from the clinical event (screening mammogram) that opens, or

\(^1\) Positive screening mammograms are measured as cases with diagnostic follow-up for additional testing (examples provided in later sections within this document).
‘triggers,’ the episode through 365 days after the trigger or the next screening mammogram.

2.2 Patient and Family Partners (PFPs) Findings

Three PFPs provided their input this round on their experiences with breast cancer. The following topics were discussed: (i) diagnosis and start of treatment; (ii) healthcare providers and care team; (iii) services for the condition and episode duration; and (iv) indicators of quality.

2.2.1 Diagnosis and Start of Treatment

All 3 PFPs were first screened for breast cancer in their late 20s or early 30s; this early screening was due to family history of breast cancer. Two of the PFPs were diagnosed with breast cancer in their early 30s or mid-40s. One PFP was monitored once a year for several years due to suspicious mammograms, but never got diagnosed with breast cancer. One PFP’s breast cancer was difficult to find due to a small and extremely deep tumor. Another PFP proactively requested skipping a screening mammogram to reduce stress from delayed results and cost of services due to the frequency of suspicious screening mammograms. Overall, the PFPs noted that different radiologists had different interpretations of their results.

2.2.2 Healthcare Providers and Care Team

PFPs identified different types of clinicians as part of their healthcare team for breast cancer diagnosis and treatment, including: primary care physician; nurse practitioner; radiologist; surgeon (breast cancer, general); oncologist (medical, radiation, surgical, hematology); and insurance case manager. However, PFPs noted that their primary care physician was their first and primary point-of-contact throughout their breast cancer journey. There were mixed experiences with how well care was coordinated. While some PFPs experienced good coordination of care due to an integrated network, shared decision-making, and access to communication portals, one PFP did not receive well-coordinated care or adequate guidance from clinicians.

2.2.3 Services for the Condition and Episode Duration

PFPs received a variety of services related to breast cancer, including: screening mammogram; diagnostic mammogram; ultrasound; magnetic resonance imaging (MRI); biopsy; lumpectomy; chemotherapy; radiation; wound care services; and breast reduction surgery. The length of care between these services varied among the PFPs, lasting anywhere from a few weeks or months to a couple of years.

2.2.4 Indicators of Quality

PFPs identified the following indicators of high-quality care:

• Timeliness of results and appointments
• Good communication between clinicians and patients  
• Active shared decision-making  
• Engagement of family caregivers and support team

On the other hand, PFPs also identified some barriers to quality care. One PFP did not receive appropriate guidance or information during their care process, and was not encouraged to be part of the decision-making process. Another PFP noted that access to care within siloed facilities or separate systems was a barrier to quality care. Another barrier that was highlighted was scheduling appointments and transportation to facilities in rural areas, particularly when co-morbidities are present.

2.3  Quality Measures

The three quality measures for breast cancer screening are constructed using a defined patient cohort (denominator value) and an outcome among the patient cohort (numerator value). Section 2.3.1 briefly summarizes the discussion on the patient cohort age. Section 2.3.2 discusses attribution. Section 2.3.3 summarizes the discussion on follow-up windows for events downstream from a screening mammogram. Section 2.3.4 covers updates to the measure numerators and denominators. Lastly, Section 2.3.5 summarizes key takeaways from the above sections based on discussions during the meeting and poll results.

2.3.1 Age of Patient Cohort

The patient cohort for the quality measures includes women 40 years and older, which aligns with the new U.S. Preventative Services Task Force guidelines that recommend women between the ages of 40 to 74 years old to get screened once every two years. TEP members agreed that the measures should capture women 40 years and older, but some members suggested having an age cap or cut-off, as it might not make sense to screen someone in an older age group like 95 years old. Acumen clarified that if the concern is related to potential lowered cost due to opting out of treatment or follow-up diagnostics for older age groups, then this concern is accounted for in the measure’s risk adjustment model, where the measures are risk adjusted for age and compare patients within each age group to each other (i.e., the measures compare a 90-year old woman to another 90-year old woman). Additionally, while it may not be appropriate to screen at a certain age, these screens are observed in claims and should be measured.

2.3.2 Attribution

Acumen presented how a clinician or clinician group is attributed a measure. Attribution means identifying the clinician or clinician group that has reasonable influence over the care and outcomes of a patient and would be scored for a particular episode. Acumen presented analyses
showing that less than 1% of screening mammograms are conducted by teams who belong to different organizations or entities. In other words, less than one percent of the time, there are separate screening mammogram billings from a provider (professional component) and a facility (technical component) on the same day for the same patient. The other 99% of the time, there is only one claim covering both components.

The TEP generally agreed with Acumen’s recommendation to attribute an episode to both entities or components as a way to promote team-based care and shared goals. This also aligns with the FDA MQSA (Mammography Quality Standards Act), which applies to physicians who interpret a mammogram, as well as radiology technologists who perform the mammogram and mammography facilities.

2.3.3 Follow-Up Windows for Events Downstream from a Screening Mammogram

The TEP discussed the appropriate lengths of each follow-up window after a screening mammogram. Overall, shorter follow-up windows provide more certainty in attributing the outcomes of an episode to the provider, while longer follow-up windows recognize the delays that can occur due to resource or scheduling limitations. Acumen presented data on each of these windows to highlight the population-level pattern for TEP members to consider.

Time interval between screening mammogram and diagnostic follow-up: Acumen provided a recommendation of 45 days between the first screening mammogram and diagnostic follow-up, which applies to the Recall Rate numerator and PPV 1 denominator. This provides harmonization with other related measures, such as the OP-39 Breast Cancer Screening Recall Rates measure in the Hospital Outpatient Quality Reporting Program. One TEP member explained that most diagnostic follow-ups occur within 45 days or even less from a screening mammogram and does not suggest extending this timeframe further. Another TEP member suggested that technician staffing shortages may play a factor into the delay of diagnostic follow-ups. From a patient perspective, one PFP noted that 45 days is a very long time to wait for a diagnostic follow-up after a screening mammogram. Overall, the Acumen team highlighted that this 45-day interval balances timeliness of recall and allows sufficient time for scheduling, but also noted that this interval could be revised as practice patterns change.

Time interval between screening mammogram and breast cancer treatment: For the PPV1 numerator, the currently specified measure includes an 8-month time interval between a screening mammogram and breast cancer treatment. Some TEP members suggested extending this timeframe by an extra month (from 8 months to 9 months) to allow for sufficient time to account for care coordination, treatment plans, and additional services needed within this timeframe.

Time interval between diagnostic follow-up and biopsy: Acumen provided a recommendation of 45 days between a diagnostic follow-up and biopsy, which applies to the
PPV3 denominator. Overall, the TEP did not have any concerns with this timeframe. Acumen noted that this interval could also be revised as any related practice patterns change.

_Time interval between diagnostic follow-up and breast cancer treatment:_ For the PPV3 numerator, the currently specified measure includes a 4-month time interval between a diagnostic follow-up and breast cancer treatment. One TEP member suggested that this timeframe should be extended to account for the time required for care coordination efforts and treatment planning. This is particularly important in low-resource areas where wait times to see a breast specialist could be longer than other areas. Another TEP member agreed with extending this timeframe by an extra month to account for delays that workforce shortages may cause. Some PFPs noted that the presence of co-morbidities and issues with transportation could affect this timeframe and also supported the preference to extend the time interval between a diagnostic follow-up and breast cancer treatment from 4 months to 5 months.

### 2.3.4 Measure Numerators and Denominators

Acumen explained that the current measure specifications only use breast cancer treatment services (e.g., chemotherapy and mastectomy) in the PPV1 and PPV3 measure numerators to capture evidence of breast cancer. However, the Acumen team asked the TEP if evaluation and management (E/M) services with a breast cancer diagnosis should also be included to capture additional evidence of breast cancer. Some TEP members had concerns with overcounting or undercounting the patient cohort with breast cancer with either option (i.e., using only breast cancer treatment may undercount the breast cancer patient population, while the addition of E/M services with a breast cancer diagnosis code may overcount it). Some TEP members agreed with including E/M codes to improve accuracy of capturing patients with breast cancer. One TEP member mentioned that the inclusion of E/M codes with a breast cancer diagnosis could capture patients who might forgo treatment, particularly patients with co-morbidities. Some TEP members pointed out different coding guidelines used when seeing patients with a new diagnosis vs. history of breast cancer, and also noted that there are inconsistencies in how primary care physicians might code a breast cancer diagnosis compared to specialists (such as an oncologist or radiologist). Another member suggested that an E/M visit could also be for a rule-out, which would not be reliable. TEP members were provided additional data analyses after the TEP meeting, showing a slight increase in the PPV1 and PPV3 rates when E/M codes are added, but still within or close to the American College of Radiology (ACR) benchmarks.

The TEP also discussed what types of services should define a diagnostic follow-up. The current specifications for the Recall Rate measure include the following services as a diagnostic follow-up: diagnostic digital breast tomosynthesis (DBT), diagnostic mammogram, computed tomography (CT) of the breast, ultrasound of the breast, and MRI of the breast. One TEP member suggested not including CT, ultrasound, and MRI services of the breast as they can be
used for both screening and diagnostic purposes and might inflate recall rates, while another TEP member suggested including as many services as possible for diagnostic follow-up to improve sensitivity. Acumen noted that we should consider aligning the Recall Rate measure with the OP-39 Breast Cancer Screening Recall Rates measure, which defines a diagnostic follow-up as a digital DBT, diagnostic mammogram, ultrasound of the breast, and MRI of the breast.

2.3.5 Key Takeaways

The key takeaways for the quality measures include the following:

- The TEP agreed that the measures (both quality and cost) should include women ages 40 years and older.
- The TEP agreed to attribute an episode to both the professional and technical/facility components when there are separate screening mammogram billings from each component on the same day for the same patient.
- The TEP voted on the following time intervals:
  - 45 days between a screening mammogram and diagnostic follow-up
  - 45 days between a diagnostic follow-up and biopsy
- The TEP did not reach consensus in the poll on increasing the time interval from 8 months to 9 months between a screening mammogram and breast cancer treatment; thus, the PPV1 measure numerator will continue using the 8-month interval as currently specified and can be re-visited during the next TEP meeting.
- The TEP did not reach consensus in the poll on increasing the time interval from 4 months to 5 months between a diagnostic follow-up and breast cancer treatment; thus, the PPV3 measure numerator will continue using the 4-month interval as currently specified and can be re-visited during the next TEP meeting.
- The TEP agreed to capture evidence of breast cancer by including both breast cancer treatment services and at least 2 E/M services with a breast cancer diagnosis.
- The TEP voted to keep ultrasound and MRI of the breast in the definition of a diagnostic-follow-up, but remove CT of breast.

2.4 Cost Measure

The Breast Cancer Screening episode-based cost measure assesses health care costs in breast cancer screening at the patient, clinician, and clinician group level. An episode is opened, or “triggered,” based on a screening mammogram. The denominator (population) is the total number of episodes from the Breast Cancer Screening episode group attributed to a clinician, and the numerator (outcome) is the sum of the ratio of observed to expected cost to Medicare for all Breast Cancer Screening episodes attributed to a clinician. Section 2.4.1 summarizes the discussion on the episode window. Section 2.4.2 summarizes the discussion on how to account
for patient heterogeneity among different sub-populations of interest. Section 2.4.3 discusses service assignment. Lastly, Section 2.4.4 summarizes key takeaways from the above sections based on discussions during the meeting and poll results.

2.4.1 Episode Window

Acumen explained that the episode window represents the period of time during which costs can be included (or “assigned”) to the measure. Episode window length begins on the day of the trigger service (i.e., screening mammogram) and should be long enough to capture consequences of care. The standard episode window length is one year, which aligns with the annual screening mammogram cycle.

The TEP discussed the trade-offs between a one-year vs. two-year episode window. A two-year episode window would have the ability to capture more cases of interval cancer and align with the U.S. Preventative Services Task Force guidelines of having screening mammograms every two years. However, Acumen noted that because the MIPS program is retroactive, clinicians would not receive performance data for up to three years after the screening mammogram. In addition, many professional societies (including the ACR) recommend annual screening mammograms; thus, it would be unfair to hold a radiologist (who most likely follows the recommendation of their society) accountable for two years, particularly if the costs within those two years are not under the control of the radiologist. Overall, TEP members considered these trade-offs and agreed with a one-year episode window.

2.4.2 Accounting for Patient Heterogeneity Among Different Sub-Populations of Interest

TEP members engaged in a discussion about how to account for patient heterogeneity among various sub-populations of interest. Sub-populations refer to patient cohorts as defined by their pre-existing conditions and other patient characteristics. Acumen described the methods for accounting for patient heterogeneity (as described in Table 1 below) before presenting analyses and providing recommendations for each sub-population of interest.

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
</table>
| Sub-Group | • If applicable, we may stratify the patient population into mutually exclusive and exhaustive sub-groups to define more homogenous patient cohorts.  
• Sub-grouping is a method that is 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. |
<table>
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<th>Method</th>
<th>Description</th>
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| Risk-Adjust   | • We may define covariates in the risk adjustment model for the measure.  
• Risk adjusting is a method to account for the case-mix of patients and other non-clinical characteristics that influence complexity. It is 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 adjust observed episode spending to an expected episode spending (predicted by a risk adjustment model). |
| Exclude       | • We may identify certain measure exclusions.  
• 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. |
| Monitor for Further Testing | • We may monitor certain sub-populations for further testing.  
• Monitoring for further testing is an option for flagging certain sub-populations that the workgroup may revisit later during measure development upon review of further data. This approach is best used when the workgroup requests additional data or information on a sub-population to discuss the appropriate method for meaningful clinical comparison. |

The cost measure as currently specified during the meeting excluded episodes with history of breast cancer, which constitute 7% of all triggered episodes and have higher cost given the higher risk of recurring breast cancer. The TEP agreed to exclude episodes with a history of breast cancer.

The currently specified cost measure risk adjusts for history of genetic risk of breast cancer (BRCA carrier status), prior presence of dense breast tissue, and history of abnormal mammogram. Acumen presented the risk-adjusted costs of episodes with these characteristics, which are comparable to the overall patient population. TEP members agreed with Acumen’s recommendation to risk adjust for these factors.

Acumen presented risk-adjusted episode costs for patients with a family history of breast cancer, prior tomosynthesis, history of smoking, and prior alcohol use, which are comparable to the overall final patient population. TEP members agreed that no further action is required (i.e., monitor for further testing) for episodes with patients with prior tomosynthesis, history of smoking, and prior alcohol use, but suggested to risk adjust for patients with a family history of breast cancer.

One PFP asked if social risk factors would be accounted for in the measure (e.g., race). Acumen noted that we will conduct analyses on social risk factors and present them during the next TEP meeting.

2.4.3 Service Assignment

The cost measure ensures that only costs of clinically related services are assigned. Acumen went through a list of categories of services based on TEP and clinical guidance that are included in the cost measure, as indicated in Table 2 below.
The TEP also discussed how to account for breast cancer treatment costs (e.g., E/M [office visits], breast cancer interventions, and complications) in the cost measure. Acumen noted that the cost of services for breast cancer treatment are currently assigned to the measure for the entirety of the one-year episode window, but clarified that service assignment rules can be used to align clinical outcomes with costs. Acumen shared three service assignment rule options for how to assign breast cancer treatment costs to ensure that the cost measure incentivizes timely diagnosis and calls attention to missed detection, as indicated below:

**Option 1:** Assign costs of breast cancer treatment but for a certain amount of time (e.g., three months after the first breast cancer indicator [i.e. breast cancer treatment service found in the PPV1 measure numerator]).

**Option 2:** Assign costs of breast cancer treatment only if breast cancer is detected 8 or more months after the screening mammogram.

**Options 3:** Do not assign costs of breast cancer treatment and instead assign a fixed cost for patients with a breast cancer diagnosis.

Overall, the TEP emphasized the importance of incentivizing and rewarding early detection of breast cancer. TEP members generally agreed with assigning costs of breast cancer treatment only if breast cancer is detected 8 months or more after the screening mammogram.

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2 Since the TEP did not reach consensus on increasing the time interval from 8 months to 9 months between a screening mammogram and breast cancer treatment, the PPV1 measure numerator will continue using the 8-month interval and thus the time interval for Option 2 will also remain as 8 months. This can be re-visited during the next TEP meeting.

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### Table 2. List of Categories of Clinically Related Services Assigned to the Cost Measure

<table>
<thead>
<tr>
<th>Screening and Diagnostics</th>
<th>E/M (Office Visits)</th>
<th>Breast Cancer Interventions</th>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>Consultation, evaluation, and preventative care</td>
<td>Lumpectomy, quadrantectomy of breast</td>
<td>Hospitalizations</td>
</tr>
<tr>
<td>Diagnostic ultrasound</td>
<td>Telephone calls, online communication, remote monitoring, and surveillance</td>
<td>Mastectomy</td>
<td>o Malignant breast disorders</td>
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<tr>
<td>Breast biopsy</td>
<td></td>
<td>Therapeutic radiology</td>
<td>o Septicemia or severe sepsis</td>
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<tr>
<td>Pathology</td>
<td></td>
<td>Cancer chemotherapy</td>
<td></td>
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<tr>
<td>CT scan</td>
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<td>Anesthesia</td>
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<tr>
<td>MRI</td>
<td></td>
<td>Laboratory – chemistry and hematology</td>
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<tr>
<td></td>
<td></td>
<td>Non-hospital-based care</td>
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<tr>
<td></td>
<td></td>
<td>Ancillary services</td>
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<tr>
<td></td>
<td></td>
<td>Medications (injections, infusions, and other forms)</td>
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<tr>
<td></td>
<td></td>
<td>Durable medical equipment and supplies</td>
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(Option 2 above) as a way to define interval breast cancer and ensure that missed breast cancer is more expensive than timely diagnosis. This 8-month timeframe aligns with the PPV1 quality measure numerator; it is also the general time it takes for most patients to receive their treatment plans, according to one TEP member.

2.4.4 Key Takeaways

The key takeaways for the cost measure include the following:

- The TEP agreed with a one-year episode window for the cost measure.
- The TEP agreed that the cost measure should exclude episodes with a history of breast cancer.
- The TEP voted to include the following risk adjustors: history of genetic risk of breast cancer (BRCA carrier status), prior presence of dense breast tissue, history of abnormal mammogram, and family history of breast cancer.
- The TEP voted to assign costs of breast cancer treatment only if breast cancer is detected 8 months or more after the screening mammogram.

3 NEXT STEPS

After the meeting, TEP members will receive a link to the recording as well as a poll to vote on measure specifications. Acumen will use the TEP’s input from the meeting discussions and poll results to update the draft measures using the specifications discussed. The updated specifications will be used for the upcoming beta testing in early 2024. The TEP will convene for a third and final time in Spring 2024 to refine and finalize the measures based on beta testing feedback. At the end of the development process, Acumen intends to submit the final measures through the CMS pre-rulemaking process for consideration for use in MIPS.

If you have any questions, please contact the Acumen Mammography Measures Moore Support Team at mmg_measures_moore@acumenllc.com.
APPENDIX A: LIST OF TEP MEMBERS AND ACUMEN PROJECT TEAM

The Improving the Diagnostic Performance of Screening Tests for Breast Cancer Technical Expert Panel is made up of 14 members (11 clinical, 3 person and family partners). Of the 14 members, 10 were able to attend the October 27, 2023 meeting. Section A.1 lists the clinical members. Section A2 lists the person and family partner members. Section A.3 lists the 12 Acumen project team members for additional reference.

A.1 TEP Members: Clinical

- Megan Adamson, MD, MHS-CL, FAAFP, DipACLM, DipABOM
- Jose Bazan, MD, MS
- Stamatia Destounis, MD, FACR, FSBI, FAIUM, Absent
- Carolyn Dueñas, RN, MBA
- Sarah Eakin, MD, FCAP
- Sharad Goyal, MD, MS
- Cindy Lee, MD, FSBI, CMQ
- Lauren Nicola, MD, Absent
- Lydia Pace, MD, MPH, Absent
- Barbara Spivak, MD
- Barbara Wexelman, MD, MBA, Absent

A.2 TEP Members: PFPs

- Rosie Bartel
- Nancy Farrar
- Barbara Kivowitz
A.3 Acumen Project Team

- Rose Do, MD, Co-Principal Investigator
- David Seidenwurm, MD, FACR, Co-Principal Investigator
- Heather Litvinoff, PT, MPH, Project Manager (Moderator)
- Sri Nagavarapu, PhD, Technical Analytic Advisor
- Lois Olinger, MCP, Senior Policy Advisor
- Laurie Feinberg, MD, MPH, Clinical Associate
- Joyce Lam, MPP, Research Manager
- Ken Tran, PhD, Senior Policy Associate
- Kevin Lei, MS, Senior Policy Researcher
- Sarah Sabbagh, MPH, Policy Associate
- Suzie Choi, BS, Data & Policy Analyst
- Alexis Shannon, BA, Administrative Assistant