Summary of Technical Expert Panel (TEP): Development of Birthing-Friendly Hospital Designation (BFHD)

December 2024

Prepared by:
Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation (CORE)

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Background

The Centers for Medicare & Medicaid Services (CMS) has contracted with Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation (CORE) to support the development of an expanded Birthing-Friendly Hospital Designation (hereinafter "the Designation"). The CORE contract name is the Centers for Medicare & Medicaid Services: Measure & Instrument Development and Support (MIDS): Development, Reevaluation, and Implementation of Outcome/Efficiency Measures for Hospitals and Eligible Clinicians, Base Period; the contract number is HHSM-75FCMC18D0042, Task Order HHSM-75FCMC24F0042. As part of its measure development process, CORE convenes groups of stakeholders who contribute direction and thoughtful input to the measure developer during measure development and maintenance. The purpose of this technical expert panel (TEP) is to advise on conceptual, technical, and implementation considerations for a scoring approach for the Designation.

The CORE Birthing-Friendly Hospital Designation development team is comprised of experts in maternal health and quality measurement development. The TEP includes 24 individuals with expertise in expertise in clinical maternal care, obstetrical/gynecologic leadership, hospital administration (including chief quality officers or other hospital quality administrators), perinatal quality improvement, health equity and birth justice, statistics and performance measurement, and consumer/patient experience.

This report summarizes the feedback and recommendations provided by the TEP during its first meeting held on October 10th, 2024.

Measure Development Team

The CORE Birthing-Friendly Hospital Designation team is led by Dr. Onyinye Oyeka, and overseen by Project Director, Dr. Katie Balestracci and Division Lead, Monika Grzeniewski. The development team is comprised of clinicians, health services researchers, maternal health experts, and experts in quality measurement. See Appendix A for the full list of CORE team members on the measure development team.

The TEP

In alignment with the CMS Measures Management System, CORE held a 30-day public call for TEP requesting for nominations and self-nominations to participate in the TEP. CORE solicited prospective TEP members via emails to individuals and organizations representing thought leaders in maternal care, email blasts sent by the CMS Office of Communication, and through a posting on CMS's website. Additionally, the CORE team partnered with SoftDev LLC to recruit patient and caregiver candidates through a targeted search and structured interview process. Through this process, candidates were successfully identified, recruited, and onboarded.

The role of the TEP for the Birthing-Friendly Hospital Designation project is to provide key methodological and clinical recommendations and feedback on to inform the development of a scoring approach for an expanded Designation. The appointment term for the TEP is from September 2024 to January 2025.

Specific Responsibilities of the TEP Members

Specific responsibilities of TEP members include:

- Complete and submit all nomination materials, including the TEP Nomination Form, letter of interest, disclosure of conflicts of interests, and curriculum vitae;
- Review background materials provided by CORE prior to each TEP meeting;
- Attend and actively participate in the TEP in-person meeting and/or teleconference meeting(s);
- Provide input and feedback to CORE on key clinical, methodological, and other decisions;
- Provide feedback to CORE on key policy or other non-technical issues;
- Review the TEP summary report prior to public release; and
- Be available to discuss recommendations and perspectives following group TEP meetings and public release of the TEP summary report.

Table 1. TEP Member Name, Affiliation, and Location

Name and Credentials	Organization (if applicable) and Role	Location
Ashley Bates	Person Family Engagement Expert	Quinter, KS
Lori Boardman, MD, ScM	Chief Quality Officer, Orlando Health; Assistant Vice President, Orlando Health Winnie Palmer Hospital	Orlando, FL
Kathryn Burggraf Stewart, MPH	Director of Health Care Ratings, The Leapfrog Group	Washington, DC
Edward Chien, MD, MBA, MA, BS	Department Chair Obstetrics and Gynecology, Cleveland Clinic Health Systems	Lakewood, OH
Lastascia Coleman, CNM, ARNP, MSN, FACNM	President, March for Moms; Clinical Assistant Professor, University of Iowa Hospitals and Clinics; Program Director Midwifery Program and Department Director of DEI Department of Obstetrics and Gynecology, University of Iowa	North Liberty, IA
Marianne Drexler	Person Family Engagement Expert	Durham, NC
Alissa Erogbogbo, MD	Associate Staff Physician Diplomate and Clinical Professor, University of California, San-Francisco	Los Altos, CA
Jodie Franzen, APRN-CNS, RNC-OB, CPHQ, MS	Director Performance Excellence, Duncan Regional Health	Duncan, OK
William (Sam) Greenfield, MD, MBA, FACOG	Professor, University of Arkansas for Medical Sciences; Medical Director Family Health, Arkansas Department of Health	Little Rock, AR
Ron Iverson, MD, MPH	Vice Chair of Obstetrics and Director of Labor and Delivery, Boston Medical Center	Boston, MA
Cassaundra Jah, CPM, LM, IBCLC, PhD	Midwife, Embrace Midwifery Care & Birth Center; Executive Director, National Association of Certified Professional Midwifes	Austin, TX

Name and Credentials	Organization (if applicable) and Role	Location
Cheri Johnson, MSN, RNC-OB	Executive Vice President of Patient Services/Chief Nursing Officer, Woman's Hospital	Baton Rouge, LA
David B. Nelson, MD	Chief Division of Maternal-Fetal Medicine, University of Texas Southwestern Medical Center; Medical Director Maternal-Fetal Medicine, Parkland Health	Dallas, TX
Ushma Patel	Person Family Engagement Expert	Raleigh, NC
Shana Philips	Person Family Engagement Expert	Crown Point, IN
Nicole Purnell	Coalition Program Director, MoMMAs Voices of the Preeclampsia Foundation; PFE Expert	Era, TX
Stephanie Radke, MD, MPH, FACOG	Clinical Associate Professor Department of Obstetrics and Gynecology, University of Iowa Hospitals and Clinics	Iowa City, IA
Lisa Satterfield, MS, MPH	Senior Director Health and Payment Policy, American College of Obstetricians and Gynecologists (ACOG)	Washington, DC
Tanya Sorenson, MD	Executive Medical Director, Swedish Health System Women and Children's	Seattle, WA
Solaire Spellen, MPH	Head of Quality Improvement & Systems Change Irth App Narrative Nation, Inc.; Co-Founder, California Coalition for Black Birth Justice	Brooklyn, NY
Nan Strauss, JD	Senior Policy Analyst for Maternal Health, National Partnership for Women & Families	Brooklyn, NY
Shannon Sullivan, MSW, MHL	President and Chief Operating Officer, Women & Infants Hospital	Providence, RI
Brittany Waggoner, MSN, RN, AGCNS	Infant and Maternal Quality Improvement Advisor, Indiana Hospital Association; Clinical Nurse Specialist, Hendricks Regional Health	Indianapolis, IN
Andrew Williams, PhD, MPH	Assistant Professor, University of North Dakota School of Medicine and Health Sciences; Executive Director and Principal Investigator, North & South Dakota Perinatal Quality Collaborative	Grand Forks, ND

CORE provides an agenda and background materials before every meeting for TEP members to review. TEP members are generally expected to attend a majority of meetings, and to review and comment on materials for the meetings they cannot attend. CORE then summarizes member comments and recommendations in a report that will be publicly posted on CMS's website.

TEP Meeting 1

TEP meetings follow a structured format consisting of the presentation of updates on measure development, key issues and areas for feedback identified during measure development, and CORE's proposed approaches to addressing the issues, followed by an open discussion of these issues by the TEP members.

CORE's Birthing-Friendly Hospital Designation team held its first TEP meeting on October 10th, 2024 (see Appendix B for the TEP meeting schedule).

First TEP Meeting Overview

Prior to the first TEP meeting, CORE provided TEP members with detailed meeting materials outlining the background on the expanded Birthing-Friendly Hospital Designation, the description of measures included in the Designation (Maternal Morbidity Structural Measure [MMSM], Severe Obstetric Complications (SOC) electronic Clinical quality Measure (eCQM) (PC-07), and Cesarean Birth eCQM (PC-02) to serve as a foundation for the discussion. The goal of this meeting was to obtain TEP insights and suggestions to inform the scoring approach in this initial phase of the Designation's expansion. This discussion centered on options for weighting the individual measures to be included in the Designation (see above), and considerations for incorporating the two SOC eCQM outcomes into the Designation.

The following bullets represent a **high-level summary** of what was discussed during the TEP meeting. For a detailed meeting summary, refer to the full minutes of the meeting in (Appendix C).

Project Background and Status

- CORE reviewed the project background for the Designation, noting that it was first implemented in the Fiscal Year (FY) 2023 Inpatient Prospective Payment Systems (IPPS) final rule, and is the first-ever CMS designation to describe high-quality maternal care. Currently, the Designation includes one measure which is the current version of the Maternal Morbidity Structural Measure (MMSM). CORE noted that CMS displays an icon on the Care Compare website to convey hospital receipt of the Designation, intended to be a consumer-friendly, publicly reported display reflecting that a hospital is committed to maternal health quality.

Future Expansion Plans

- CORE provided a brief overview of the measures that will be included in the initial expansion of the Designation: the expanded MMSM currently under development and two maternal quality care outcome measures that have been implemented in the Hospital Inpatient Quality (IQR) Program:
    - The SOC eCQM (PC-07) assesses the occurrence of severe maternal morbidity (SMM) and mortality events during delivery hospitalizations. The SOC eCQM has two outcomes: any severe obstetric complications (PC-07a), and severe obstetric complications excluding encounters in which blood transfusions are the only complication (PC-07b).
    - The Cesarean Birth eCQM (PC-02) assesses the proportion of nulliparous women with a term, singleton baby in a vertex position (baby is head down in uterus) delivered by cesarean section.

Development of the Designation Scoring Approach

- CORE reviewed the approach to developing a scoring approach for the Designation, and the key methodological considerations: whether the Designation will be scored using individual measure thresholds or using a composite score, and key considerations based on that approach related to: measure standardization, whether and how to assign weights to individual measures, best approach to a composite score, and threshold or composite cut-off for awarding the Designation.

Discussion Questions and Summary of TEP Input

Weighting Considerations for the Designation

- CORE identified consideration of whether to assign weights to each measure and how much weight to assign. Options include equal weighting, or differential weighting.
- CORE proposed differential weighting of individual measures within the Designation with an approach that assigns more weight to the outcome measures since outcome measures most directly assess hospital quality, and this approach aligns with other maternal health rankings/designations:
    - Expanded MMSM weighted 20%;
    - SOC eCQM outcome weighted 40%;
    - Cesarean eCQM outcome weighted 40%.

Discussion Questions

- CORE posed the following discussion questions to the TEP:
    - What are your views on the proposed weighting approach?
    - What alternative strategies or modifications might you suggest to improve the weighting approach?

TEP Feedback

- The majority of TEP members expressed support for a differential weighting approach for the three measures and noted support for weighting the outcome measures more than the structural measure. They also recommended to increase the weight of the structural measure (relative to the outcome measures).
    - TEP members expressed that the MMSM is key to encouraging hospitals and teams to collaborate, to build structures that prevent maternal morbidity and mortality, and to increase participation in PQCs.
    - TEP members noted the structural measure is beneficial to <u>all</u> hospitals and weighting the structural measure higher than 20% will incentivize hospital to improve upon the standards of the expanded MMSM.
    - Some TEP members noted that the combined outcome measure weight of 80% is too high (SOC and Cesarean Birth measures are interrelated).
        - One TEP member proposed an alternative option that others agreed with, to re-weight the MMSM 40% and the two outcome measures 30% each.
- Some TEP members supported the existing MMSM weight of 20%, noting the lack of a validation mechanism for the structural measure, thus the measure should have less impact on the composite score.
- One TEP member presented an alternative approach to weight the Cesarean Birth eCQM more heavily than the SOC eCQM, given the high percentage of patients who are affected by cesarean birth and patient preferences to avoid unnecessary C-sections.

TEP members shared agreement that the Cesarean Birth eCQM can add distinct value in reducing unnecessary C-section rates.

   - Some TEP members highlighted that reducing C-sections could lower SMM. They also noted that although reporting NTSV C-section rates has not significantly reduced rates, there is substantial room for improvement, and including the measure in the Designation could help draw greater attention to it.

Inclusion of and Weighting Both SOC eCQM Outcomes

- CORE recommended including both of the SOC eCQM outcomes reported for this measure in the Designation, to align with current reporting practices, provide a comprehensive view of the quality of care, and encourage improvement across the entire range of maternal complications.
  - PC-07a is defined as delivery hospitalizations with any severe obstetric complication, reported as a rate per 10,000 delivery hospitalizations;
  - PC-07b is defined as delivery hospitalizations with any severe obstetric complication excluding hospitalizations for which blood transfusion is the only complication, reported as a rate per 10,000 delivery hospitalizations.
- CORE proposed a weighting approach for these two SOC eCQM outcomes: a total weight of 40% for the SOC measure, to be evenly distributed across both SOC eCQM outcomes with each outcome measure weighted at 20%.
  - This approach retains the same weight for the SOC eCQM (40%) as the other outcome measure in the Designation, and PC-07a and PC-07b would contribute equally to the 40% weighting.

Discussion Questions

- CORE posed the following discussion questions to the TEP:
  - ***What is your perspective on the recommendation to include both PC-07a and PC-07b in the Designation?***
  - ***What considerations should be made for weighting?***

TEP Feedback

- Some TEP members recommended not including PC-07a (which includes any severe obstetric complication, including delivery encounters in which blood transfusion is the only event) in the Designation.
  - TEP members were concerned that inclusion of PC-07a may deter hospitals from providing timely and clinically appropriate transfusions and may lead to public misinterpretation of the measure results for hospitals that treat higher-risk patients.
- Several other TEP members recommended down-weighting PC-07a relative to the other SOC eCQM outcome that excludes blood transfusion-only events, as the capture of transfusion for severe maternal morbidity complications in the SOC eCQM is not sufficiently defined.
  - TEP members noted that assigning a higher weight to PC-07a may discourage hospitals from providing timely transfusions, which is not the intention of the measure.
  - Several TEP members expressed concern about the capture of transfusion in the SOC eCQM and recommended to quantify and define thresholds for the blood transfusion events captured in PC-07a, as transfusions can represent very different clinical scenarios (e.g., severe vs non-severe events).

    - TEP members noted that patients receive blood transfusions for reasons other than maternal hemorrhage or severe maternal complications, for example, patients with anemia during the pregnancy.
- Another TEP member supported the inclusion of both SOC eCQM outcomes in the Designation with no changes to the proposed weighting. They noted, in response to potential concern that some transfusions included in the outcome could be measuring an outcome other than severe maternal morbidity, that the measure is risk-adjusted for comorbidities such as anemia, bleeding disorder, and long-term anticoagulant use.

Additional TEP Feedback

- TEP members strongly supported the recommendation to include process measures in a future expanded Designation.
- TEP members emphasized the importance of disaggregated measure reporting (e.g., by race/ethnicity and/or payer status) to assess disparities and hospital quality.
- TEP members strongly recommended the data/information that are collected to confer the Designation (in addition to the composite score) are made publicly available on the Care Compare website.

Next Steps

- TEP members were invited to send emails with additional feedback or questions to Jace O'Neill-Lee, jacelyn.oneill-lee@yale.edu, and were alerted to a brief survey that they would be asked to complete on their experience of the meeting. CORE noted that they would provide CMS with a summary of the TEP input for consideration. CORE noted that they would reach out to the TEP to schedule the next TEP meeting.
- The project team will consolidate the feedback received at the October 10th, 2024, TEP meeting with the feedback received.

Appendix A. CORE Measure Development Team

Table 2. Center for Outcomes Research and Evaluation (CORE) Team Members – Birthing-Friendly Hospital Designation

Name	Role
Kathleen Balestracci, PhD, MSW	Director, Quality Measurement Programs
Monika Grzeniewski, MPH	Division Lead
Onyinye Oyeka, PhD	Project Lead
Shefali Grant, MPH	Project Manager
Jacelyn O'Neill-Lee, BA	Project Coordinator
Alexandrea Stupakevich, MPH	Research Support
Peizheng (Jack) Chen, MS	Analyst
Valery A. Danilack-Fekete, MPH, PhD	Technical Subject Matter Expert
Lisa Suter, MD	Senior Director, Quality Measurement Programs

Appendix B. TEP Call Schedule

TEP Meeting #1
Development of the Birthing-Friendly Hospital Designation TEP

October 10th, 2024, 3:00-5:00PM EST (Zoom teleconference)

Appendix C. Detailed Summary of Base Period TEP Meeting

Development of the Birthing-Friendly Hospital Designation Technical Expert Panel (TEP)

Meeting #1 Minutes

Thursday, October 10th, 2024, 3:00 – 5:00PM ET

Participants

- **Technical Expert Panel (TEP) Participants:** Kathryn Burggraf Stewart, Edward Chien, Lastascia Coleman, Marianne Drexler, Alissa Erogbogbo, Jodie Franzen, William (Sam) Greenfield, Ron Iverson, Cassandra Jah, Ushma Patel, Shana Philips, Nicole Purnell, Lisa Satterfield, Solaire Spellen, Nan Strauss, Andrew Williams
- **Yale New Haven Health Services Corporation — Center for Outcomes Research and Evaluation (YNHHSC/CORE):** Katie Balestracci, Valery Danilack-Fekete, Patricia Farone Nogel, Monika Grzeniewski, Roisin Healy, Erin Joyce, Jacelyn (Jace) O'Neill-Lee, Onyinye Oyeka, Allie Stupakevich, Laura Barrett (X4 Health)

Administrative Items

TEP Action Items

- Review and send any suggested edits to the meeting summary;
- Complete a brief survey about their experience during this meeting;
- Reach out via email if they have any questions; and
- Watch their email for future project updates.

CORE Action Items

- Share the summary of the TEP meeting for review; and
- Consider TEP feedback during the measure development process.

Discussion

Welcome & Introductions

- Ms. Jacelyn O'Neill-Lee welcomed the TEP members, provided instructions about the meeting controls for closed captioning, provided participation guidelines and discussion decorum, shared details about the specific Center for Medicare & Medicaid Services (CMS) funding source supporting this work, and reminded members about the confidentiality of meeting materials and discussion.
- Ms. O'Neill-Lee acknowledged that CMS staff may be joining the call.
- Ms. O'Neill-Lee reviewed the agenda.

Introductions

- Ms. O'Neill-Lee introduced herself as the Project Coordinator for the Birthing-Friendly Hospital Designation (BFHD) Team.
- Dr. Onyinye Oyeka introduced herself as the Project Lead and expressed appreciation for the TEP members' participation and their willingness to provide input about the proposed measure.

- As these TEP members were convened to provide input for two maternal projects for CORE, only those who had not yet attended a TEP meeting introduced themselves and shared their relevant background and interest in maternal health.

Project Background and Status

- Ms. O'Neill-Lee reviewed the TEP meeting goal and project scope: to solicit input and feedback on key decisions in the development of a scoring methodology for an expanded BFHD ("the Designation"). She noted that modifications to the measures being considered for inclusion in the Designation which have been implemented in a CMS program are not within scope of this project and would not be a part of the meeting discussion.
- Dr. Oyeka provided an overview of the project, noting that the Designation was first implemented in the Fiscal Year (FY) 2023 Inpatient Prospective Payment Systems (IPPS) final rule and is the first-ever CMS designation to describe high-quality maternal care; it is intended to be a consumer-friendly, publicly reported display reflecting that a hospital is committed to maternal health quality.
- Currently the Designation includes the current version of the Maternal Morbidity Structural Measure (MMSM); it will be expanded to include additional maternal health quality measures, and an expanded version of the MMSM. Dr. Oyeka noted that CMS displays an icon on the Care Compare website, to convey hospital receipt of the Designation. The icon reflects that the hospital has met or exceeded the criteria, based on hospital performance, to be a Birthing-Friendly hospital.

Future Expansion Plans

- Dr. Oyeka provided a brief overview of the measures that will be included in the initial expansion of the Designation:
    - Expanded MMSM
        - The expanded MMSM will be an attestation-based structural measure designed to assess hospital capacity to provide high-quality maternal care consisting of five domains focused on different aspects of maternal care, quality, and safety.
    - Severe Obstetric Complications (SOC) electronic clinical quality measure (eCQM)
        - The SOC eCQM, sometimes referred to as PC-07, is an outcome measure that assesses the occurrence of severe maternal morbidity (SMM) and mortality events, based on the Centers for Disease Control and Prevention's (CDC) 21 indicators of severe maternal morbidity. Currently this measure is in mandatory reporting (2024).
        - The SOC eCQM includes two outcomes:
            1. Delivery hospitalizations with any severe obstetric complication, reported as a rate per 10,000 delivery hospitalizations (PC-07a).
            2. Delivery hospitalizations with any severe obstetric complication excluding delivery hospitalizations for which blood transfusion is the only complication, reported as a rate per 10,000 delivery hospitalizations (PC-07b).
    - Cesarean Birth eCQM
        - The Cesarean Birth eCQM, sometimes referred to as PC-02, is an outcome measure that assesses the number of nulliparous women with a

        - term, singleton baby in a vertex position (baby is head down in uterus) delivered by cesarean section.
        - While there is not an established threshold for cesarean rates, The Joint Commission (TJC) recommends an acceptable rate of 30% or lower, while the CDC's Healthy People 2030 target is set at 23.6%.
- Dr. Oyeka noted that the Designation will aggregate the individual measures (expanded MMSM, SOC eCQM, and Cesarean Birth eCQM) into an overall Designation score, which will be used to award the Designation.

TEP Question

- A TEP member asked about the Cesarean Birth PC-02 measure and the rationale for the single stillbirth exclusion.
    - Dr. Valery Danilack-Fekete clarified that CORE was not involved in the development of the Cesarean Birth eCQM but noted that the majority of stillbirths in the United States (US) are known before the start of labor and delivery, which may impact the decision of whether or not to perform a Cesarean and changes the associated risk-benefit of the decision. She confirmed that single stillbirths are included in the SOC measure.

Development of the Designation Scoring Approach

- Dr. Oyeka reviewed CORE's approach to the project which includes:
    - Reviewing the scoring methodologies of existing designations and rankings with a focus on existing maternal designations and rankings.
    - Exploring approaches to aggregating different types of measures, including structural, process, and outcome measures, to develop a comprehensive assessment framework.
    - Assessing the application and rationale for different weighting approaches, considering how each measure's importance should be reflected in the final composite score.
- Dr. Oyeka noted that the team is testing the Designation scoring approach using voluntary reported data from calendar year (CY) 2023 for the SOC eCQM and Cesarean Birth eCQM, and simulated data for the expanded MMSM, given that the measure is currently under development. Mandatory reported data from CY 2024 for the outcome measures, and the simulated expanded MMSM data, will be used to finalize the scoring methodology.
- Dr. Oyeka reviewed the key methodological considerations of the Designation scoring framework that will require TEP input including:
    - Whether the Designation will be scored using individual measure thresholds or using a composite score.
    - Best approach for standardizing individual measures to ensure consistency in evaluation.
    - Whether and how to assign weights to individual measures.
    - Best approach to derive the composite score.
    - Determine individual thresholds or composite cut-off for awarding the Designation.
- Dr. Oyeka noted that the goal for the current meeting was to solicit TEP input about the approach to weighting the individual measures and for incorporating the two SOC eCQM

outcomes, PC-07a and PC-07b, into the Designation. Considerations must be made on whether to assign weights to each measure and how much weight to assign.

Proposed Weighting of Individual Measures within the Designation

- Dr. Oyeka explained that the weights signal the relative importance of the different components of a composite score. Options for weighting individual measures within the Designation are: 1) equal weighting or 2) differential weighting.
- CORE proposed differential weighting of individual measures within the Designation with an approach that assigns more weight to the outcome measures since outcome measures most directly assess hospital quality, and this approach aligns with other maternal health rankings/designations. The proposed weighting approach for the individual measures are:
    - Expanded MMSM weighted 20%;
    - SOC eCQM outcome weighted 40%;
    - Cesarean Birth eCQM outcome weighted 40%.

Discussion Session #1

Questions for TEP:
What are your views on the proposed weighting approach?
What alternative strategies or modifications might you suggest to improve the weighting approach?

- Several TEP members supported the proposed weighting approach and agreed that the outcome measures should be weighted more highly than the structural measure.
- Several TEP members recommended increasing the weight of the structural measure.
    - Some TEP members expressed concern about weighting the structural measure at 20%, recommending it be weighted more highly to incentivize hospitals to improve upon the standards of the expanded MMSM, though they agreed outcome measures should still have the highest weight overall.
    - Another TEP member agreed with increasing the weight of the structural measure but did not think the weights needed to be split evenly.
    - Several TEP members agreed the structural measure deserved more weight, suggesting reducing the combined weight of the outcome measures, which they found too high.
    - One TEP member emphasized that the structural measure encourages team collaboration and participation in Perinatal Quality Collaboratives (PQCs).
    - Several TEP members supported increasing the weight of the structural measure to better reflect hospitals' efforts in preventing maternal morbidity and mortality. One member specifically proposed weighting adjustments: MMSM 40%, SOC 30%, Cesarean 30%.
    - Another TEP member echoed concerns that the structural measure is currently underweighted at 20%, and that the SOC measure, though risk-adjusted, might unfairly impact hospitals.
    - A TEP member also expressed concern that the lower weighting of MMSM reduced hospitals' incentives to focus on structural improvements.
- One TEP member highlighted challenges in assessing the structural measure's weight, as it is not finalized.

- A few members raised concerns regarding risk adjustment during the discussion on weighting. They emphasized that without appropriate risk adjustment, weighting the outcome measures too heavily could discourage hospitals from accepting complicated patients and penalize tertiary hospitals that handle high-risk cases.
  - A few members also agreed that measures were not adequately risk-adjusted, warning of potential unintended consequences.
  - One TEP member noted that small hospitals with few SMM events may be unfairly judged due to their low delivery volumes, while another member highlighted that Level 3 hospitals might struggle to meet standards because they serve higher-risk populations.
- A few TEP members raised similar concerns about the lack of risk adjustment for the Cesarean Birth Measure.
  - One TEP member suggested that while the Cesarean Birth Measure is not risk-adjusted, the denominator accounts for risk by including several exclusions.
- One TEP member recommended weighting the Cesarean Birth Measure more heavily than the SOC measure, especially given the high percentage of patients who are affected by cesarean birth and patient preferences to avoid unnecessary C-sections. They stated that maternal organizations have reported that the increase in C-section rates have had no discernible benefits to either babies or mothers, and is heavily influenced by the hospital unit culture, which makes the Cesarean Birth Measure an excellent measure to include, with information for patients to select the best hospital. The TEP member did not support using TJC threshold because it is too high at 30%. They also recommended that the data/information collected to confer the Designation be made publicly available on the Care Compare website, so that the underlying information is useful to patients who are making decisions about where to give birth. The member asked whether CORE had information about the number of people and patients who utilize the Care Compare website.
  - Several TEP members agreed with the comment about the Cesarean Birth Measure and rates.
  - Ms. Monika Grzeniewski confirmed that CORE does not have information about the number of patients that use the Care Compare website to make a decision on where they go to receive maternal care.
- A TEP member recommended that the Designation include process measures. They also noted that it is difficult to make recommendations to weighting the structural measure given that it will include 25 structural areas to assess, which have yet to be determined. They asked if there would be an opportunity to discuss weighting after the expanded structural measure has been finalized.
  - Dr. Oyeka acknowledged the challenges, noted CORE's work on the expansion of the MMSM, and that the weighting/scoring approach will not be finalized until the mandatory reporting data for the SOC and Cesarean Birth eCQMs are examined. There will be ample time to incorporate additional feedback and recommendations throughout the process.
- A different TEP member echoed previous comments that the Cesarean Birth Measure is not reducing Cesarean rates. The TEP member shared that maternal health experts had emphasized that the nulliparous, term, singleton, vertex (NTSV) is a measure of how labor and delivery is managed in a facility. They strongly supported making the composite score and the individual measures transparent to patients. Lastly, they

emphasized the significance of equity issues around NTSV C-sections as evidenced by data that shows differences in race and ethnicity within hospitals.

- A few TEP members agreed that reporting the NTSV C-section rates has not made a difference in reducing C-section rates at their hospital, and one noted that including the measure in the Designation would bring more attention to the measure. They concurred with the perspective on the importance of hospital culture to reflect on the hospital's treatment process (e.g., identify what is happening with a patient, observe how we operationalize the labor deck, and the detailed conversations with patients).
- Another TEP member commented that reducing C-sections will likely reduce SMM.
  - A TEP member also shared the need for experts in the field to focus on structural changes that affect patients and ensure key conversations help patients understand their labor. Simply reporting outcomes hasn't improved nationwide NTSV C-section rates, highlighting the importance of considering the entire patient experience. If a C-section is discussed, it is crucial to have open communication with all parties aligned toward the same goal. This approach promotes equity by ensuring all patients receive consistent care, with the team working in harmony to support the patient through delivery.
  - Another TEP member agreed with the lack of progress on NTSV but noted if CMS incorporated it into this Designation, it would make people start to pay attention.
- Another TEP member agreed with adding process measures to the Designation and emphasized the importance of disaggregated measure reporting (by race and ethnicity or payer status) to identify out-of-range values, which have implications for disparities and hospital quality.
  - Another TEP member agreed that disaggregated reporting is critical.

Incorporating Severe Obstetric Complications eCQM Outcomes into the Designation

- Dr. Oyeka discussed CORE's proposed approach to incorporate both SOC measure outcomes (PC-07a and PC-07b) in the Designation scoring. PC-07a captures SOC events, including blood transfusions, which are typically performed in response to excessive bleeding; PC-07b excludes cases where blood transfusion is the only event. She noted that including both outcomes will align with current reporting practices, provide a comprehensive view of the quality of care, and encourage improvement across the entire range of maternal complications.
- Dr. Oyeka noted that CORE examined the correlation between the SOC eCQM outcomes to assess the relationship between the two outcomes. The Spearman correlation coefficient for both outcomes, PC-07a and PC-07b, is 0.29 ($p<0.0001$), which indicates a weak positive correlation between the two measures. This suggests that the measures reflect different dimensions of quality and supports the recommendation to incorporate both measures into the Designation.
- Dr. Oyeka summarized a potential approach for weighting the SOC eCQM outcomes, noting that since the weight assigned to the SOC measure is 40%, each outcome could be assigned 20% each (20% PC-07a and 20% PC-07b).

Discussion Session #2

Questions for TEP:

What is your perspective on the recommendation to include both PC-07a and PC-07b in the Designation?

What considerations should be made for weighting?

- A TEP member expressed preference to exclude the outcome that includes blood transfusion (PC-07a) from hospital-level reporting in this context. Although the measure is important for tracking/surveillance of population-wide trends, it is not appropriate for the purpose of measuring hospital quality because of the unintended consequence of including transfusions as something that would be considered negative. She stated that we do not want to create a deterrent or to penalize hospitals that are doing what they should in providing timely transfusions. Inclusion of PC-07a may inadvertently communicate to community members that they avoid hospitals that are most promptly identifying and treating obstetric hemorrhage.
- Some TEP members did not support the weight assignment to PC-07a, recommending that the outcome be down-weighted. They noted that assigning a higher weight to PC-07a may discourage hospitals from providing transfusions. They shared that many of their patients are having blood transfusions for reasons other than maternal hemorrhage or severe obstetric complication, which is not the intention of the measure. They also noted that hospitals that they work with on quality improvement (QI) initiatives would prefer to exclude transfusion because it may introduce complexities that could obscure the clarity of the measure.
- A few TEP members noted the inclusion of transfusions provides some value but recommended establishing a threshold to quantify transfusions. Transfusing 4 – 6 units (as a component of a mass transfusion protocol) is a much different indicator than transfusing 1 – 2 units for an anemic patient; it is important to differentiate these clinical scenarios. They referenced that the California Maternal Quality Care Collaborative (CMQCC) OB Hemorrhage Toolkit V3.0 - Appendix T: Sample Massive Transfusion Procedure (MTP), an MTP, is defined as greater than 4 or more units of any type of blood products. While transfusion is a very important metric, it also reflects prenatal care, patient access to care, incoming anemia rates, how blood loss is managed in real time, as well as local practices and culture related to managing post-op symptoms. There is much variation with transfusions across physicians within hospitals in California.
- One TEP member recommended removing the SOC outcome including transfusion-only events and increasing the weighting for the Cesarean Birth Measure and the MMSM. Another TEP member recommended reducing the PC-07a weight to 5 – 10%, if the assessment of transfusion cannot be redefined to quantify a threshold (e.g., 4 – 6 units and higher). If the transfusion measure can be redefined with specific quantities, they recommended leaving PC-07a weight at 20%.
    - Dr. Balestracci clarified that the SOC and Cesarean Birth eCQMs for inclusion in the Designation are fully developed measures in CMS reporting programs (e.g., the Hospital Inpatient Quality Reporting Program [IQR]), and that CORE does not have the opportunity to alter the measures or report them differently for use in the Designation. There may be an opportunity in the future to provide input to CMS if/when the measures are in reevaluation. She noted that this task will include the measures as they exist with input from the TEP on measure scoring and weighting approaches for inclusion of the measures in the Designation.

- Dr. Balestracci noted that CORE will share the TEP concerns about how transfusion is measured with CMS. She noted that in the process of SOC measure development, the development team had extensive discussion and TEP input on the SOC measure. Future reevaluation of the SOC measure may possibly include a discussion related to hospital and electronic health record (EHR) system's ability to provide more consistent capture of transfusion data.
- A different TEP member asked if hemorrhage is included in the measure numerator definition. They also noted concern that the general public may misunderstand or misinterpret measure results for different types of hospitals, especially the results for hospitals that treat more higher-risk patients.
  - Dr. Balestracci clarified that the intent of the inclusion of transfusion in the numerator (outcome) definition for the SOC measure is for capture of hemorrhage. Additional numerator events are also included, such as disseminated intravascular coagulation (DIC). There is variation in the measurement and documentation of transfusions across hospitals, creating challenges to obtaining consistent measurement data for more detailed specification in the measure.
- A few TEP members reiterated the importance of disaggregated data and reporting to assess racial disparities because it can indicate that people are not receiving equitable care if differences exist in transfusions across populations. They recommended establishing hemoglobin for patients upon hospital admission, as Black women are more prone to anemia during pregnancy; Black women may be getting more transfusions because they have anemia when they enter the hospital, or they may receive delayed or no transfusions due to differential care.
  - Dr. Oyeka clarified that PC-07 and PC-02 will be disaggregated and privately reported to the individual hospitals, but these data will not be publicly available.
- A different TEP member agreed with previous comments and supported the inclusion of both measures (PC-07a and PC-07b) with no changes to the weighting, especially since the measure is risk-adjusted (e.g., risk-adjusted for anemia).
- Another TEP member agreed with previous sentiments that blood transfusion should be quantified with 4 units at the lowest end of the transfusion. They agreed that if PC-07a is retained without further definition or qualification, then it should be weighted less.
  - A TEP member asked if some of the risk adjustments would account for minor transfusions.
    - Dr. Danilack-Fekete responded that anemia is a risk factor, for example, as is bleeding disorder and long-term anticoagulant use.
  - Dr. Balestracci confirmed the risk adjustment model does account for anemia and there is an extensive number of risk variables (34) included in the model. The risk model includes variables that would help support some of the issues that have been raised by the TEP.
- Ms. O'Neill-Lee briefly summarized the TEP discussion feedback.
- Dr. Oyeka acknowledged the TEP feedback about the importance of adding process measures to the Designation, however, the current focus is to develop a scoring approach for the current Designation with the three existing measures (expanded MMSM, SOC eCQM, and Cesarean Birth eCQM). CORE will compile the TEP input about the addition of process measures to the Designation to share with CMS. She

asked the TEP for input on specific process measures they would want CMS to consider as part of the Designation.

- A TEP member noted that research on process measures could be helpful before formulating recommendations. Another TEP member suggested the group could scour Alliance for Innovation on Maternal Health (AIM) process measures to see if there is a future state with process measures.
    - Dr. Balestracci acknowledged TEP input to include a process measure in a future expanded Designation. She clarified that the Designation must include measures that are already used in CMS reporting and any additional measure considerations will be shared with CMS.
    - Dr. Oyeka confirmed that the CORE team will reach out regarding TEP recommendations for process measures.

Next Steps

- Ms. O'Neill-Lee noted that continued input was welcome and encouraged TEP members to send emails with additional feedback or questions to: cmsmaternalquality@yale.edu
- Ms. O'Neill-Lee noted the next steps for CORE including:
    - Compile TEP feedback and share with CMS.
    - Share a summary of today's meeting for TEP review in the coming weeks; and
    - Utilize TEP feedback to inform the Designation.
- Ms. O'Neill-Lee noted next steps for the TEP members, including:
    - Review and send any suggested edits to the TEP meeting summary;
    - Complete a brief survey about experience during meeting;
    - Reach out via email with any questions and watch email for future project updates; and
    - Plan to join the next TEP meeting scheduled for early-December 2024.
- Ms. O'Neill-Lee thanked participants for sharing their valuable insights and noted appreciation for the complexity of this conversation.

Appendix D. Email Responses Following TEP Meeting 1

Following the first TEP meeting for the Birthing-Friendly Hospital Designation project, eight TEP members who were unable to attend the meeting were invited to share feedback on all three questions. TEP members were also invited to provide feedback on process measures they would like CMS to consider. The below is a high-level summary of TEP feedback, grouped into themes.

<u>Question 1</u>

What are your views on the proposed weighting approach?

What alternative strategies or modifications might you suggest to improve the weighting approach?

- TEP members recommended increasing the weight of the Maternal Morbidity Structural Measure (MMSM), and they communicated that greater weighting of this measure could help drive improvements in care.
    - One TEP member noted that institutional commitment and genuine accountability can set the expectations and tone for care both within and outside of the hospital setting. They suggested possibly weighting all three measures equally.
    - Another TEP member also recommended weighting the MMSM equally to outcome measures. They noted that the Designation provides a major opportunity to encourage facilities to invest in their maternal health service line, which is often excluded from the facility's central quality and safety program. They noted that the goal is to incentivize facilities to invest in their maternal service line. Outcome measures are not always in the facility's direct control, as some patients do need C-sections and some SMM events are not preventable, though certainly each facility should be striving to optimize both of these outcomes so they are valid to consider. The TEP member highlighted that they view a "good" rate for each depends on the type of facility.
    - One TEP member highlighted that structural measures are more apt to get at the root causes of maternal issues in comparison to PC-02 and PC-07 rates. They suggested the following weighting: structure measure = 30%, SOC eCQM = 30%, and the > Cesarean Birth eCQM = 40%.
- One TEP member recommended increasing the weight of the Cesarean Birth eCQM results.
- One TEP member noted that hospitals with higher acuity are naturally going to have a higher Severe Maternal Morbidity rate due to chronic health issues and seeing higher acuity patients.
- One TEP member recommended more heavily weighting outcome as opposed to structural measures if we are looking to support high quality reporting and care. However, they noted they would not weight them equally.
- One TEP member encouraged CMS to carefully consider using C-section rates for NTSV as a marker. They highlighted that research has found this often does not account for the increasing comorbidities (4-6% regionally) of women and can inadvertently push

hospitals to not do C-sections when medically appropriate, resulting in increased infant mortality and morbidity.

- One TEP member asked for clarification regarding how we see the data testing affecting our universal goal of improved maternal child health outcomes.
- One TEP member recommended including infant morbidity and mortality to the Designation to ensure the measures aren't causing more infant harm.
- Two TEP members recommended removing C-section rates or risk adjusting the measure before it is included.
- One TEP member agreed that not all measures should be weighted equally but believes that heavily weighting the NTSV Cesarean rate is problematic due to its lack of risk adjustment and the underdevelopment of comprehensive quality measures. They suggested a revised weighting: 30% for the structural measure, 50% for the SOC eCQM, and 20% for the Cesarean Birth eCQM, while advocating for the inclusion of process measures, such as standardized protocols and timely interventions. They proposed a final weighting of 10% structural measure, 40% process measures, 30% SOC eCQM, and 20% Cesarean Birth eCQM to prioritize evidence-based practices.
- TEP members agreed with including some clinical process measures that reflect the quality of care being provided, specifically noting the AIM program. Additionally, one member echoed conversations about OB tertiary hospitals being unfairly treated because of taking on high-risk patients. Another member agreed that they would weigh the SOC measure more.
- One TEP member recommended this conversation be shifted toward how facilities will be compared to achieve the Designation. It will not be fair to tertiary care centers to be compared to community facilities. They suggested creating facility cohorts based on volume or level of maternal care and then compare within these groups with differing requirements to achieve Designation. Tertiary care facilities will see more SOC due to complex patients being referred to them.

<u>Question 2</u>

Q2: What is your perspective on the recommendation to include both PC-07a and PC-07b in the Designation?

What considerations should be made for weighting?

- TEP members voiced concern about inclusion of the SOC outcome which includes encounters in which the only event was a blood transfusion (PC-07a).
    - One member noted that transfusions are often given for other reasons than obstetric complications. They stated that until we can apply a benchmark or threshold to quantify how much blood is truly considered an obstetric complication, this element seems irrelevant for QI purposes. They noted that if both SOC outcomes need to be included, they recommended PC-07a at 20% and PC-07b at 10%.
    - One TEP member noted that excluding blood transfusions is important. While transfusion rates can reflect care quality (such as how well hemorrhages are

managed), we do not want hospitals to avoid transfusions that are medically indicated for concerns of this measure. They noted it is important to address conditions present on admission. For example, patients transferred to a higher level of care due to a complication.
    - One TEP member noted that many organizations have chosen to follow PC-07b only given the evidence that the occurrence of blood transfusion without other SMM indicators lacks specificity and reduces the PPV for 'near miss' events.
    - One TEP member highlighted that implementing quality measures addressing SMM can have unintended consequences, such as discouraging necessary interventions like blood transfusions to avoid a negative label. This could lead to worse outcomes, including increased mortality. A hospital with a high transfusion rate may actually be providing better quality care than one with a low rate, as the former may be more effective at addressing severe hemorrhage. Similarly, using blood transfusion as a component of SMM can be misleading due to inconsistent coding. A more accurate measure of hospital quality could be SMM without transfusion (PC-07b), but this requires consistent definitions and data quality. Additionally, comparisons of SMM rates should consider regional care differences, case mix, and the adequacy of risk adjustment for various obstetric conditions.
- One TEP member agreed with TEP members on the live meeting that although NTSV C-section rates have remained relatively stagnant, and that the measure should benefit from risk-adjustment.

<u>Input on Future Consideration of Inclusion of Process Measures</u>

Process Measures

- TEP members suggested several process measures.
    - One TEP member suggested transparency on racial/ethnic disparities in maternal and neonatal care (focus on any perinatal core measure).
    - Another TEP member suggested measures addressing VBAC rate, Episiotomy rate, DVT prophylaxis (% of women receiving DVT prophylaxis prior to c-section), Bilirubin screening (% of babies screened for jaundice prior to discharge).
    - One TEP member suggested SDOH.
- One TEP member provided detailed measure suggestions, including:
    - Timely antihypertensive treatment (within 30-60 minutes) for severe blood pressure (160/110 mmHg or greater), aligning with the Society for Maternal-Fetal Medicine and AIM guidelines.
    - Widespread adoption of "enhanced recovery after surgery" (ERAS) to reduce opioid use after cesarean births, with successful outcomes in opioid reduction without impacting pain management.
    - Screening for postpartum depression and placenta accreta spectrum (PAS), with efforts like universal screening for cesarean patients in Texas.
    - Adoption of Culturally and Linguistically Appropriate Services (CLAS) in maternal care to ensure respectful, compassionate care.
    - Multidisciplinary case reviews for quality improvement, particularly for triggers like PC-07.

- Providing Naloxone at discharge for patients with opioid use disorder to reduce overdose-related maternal deaths.