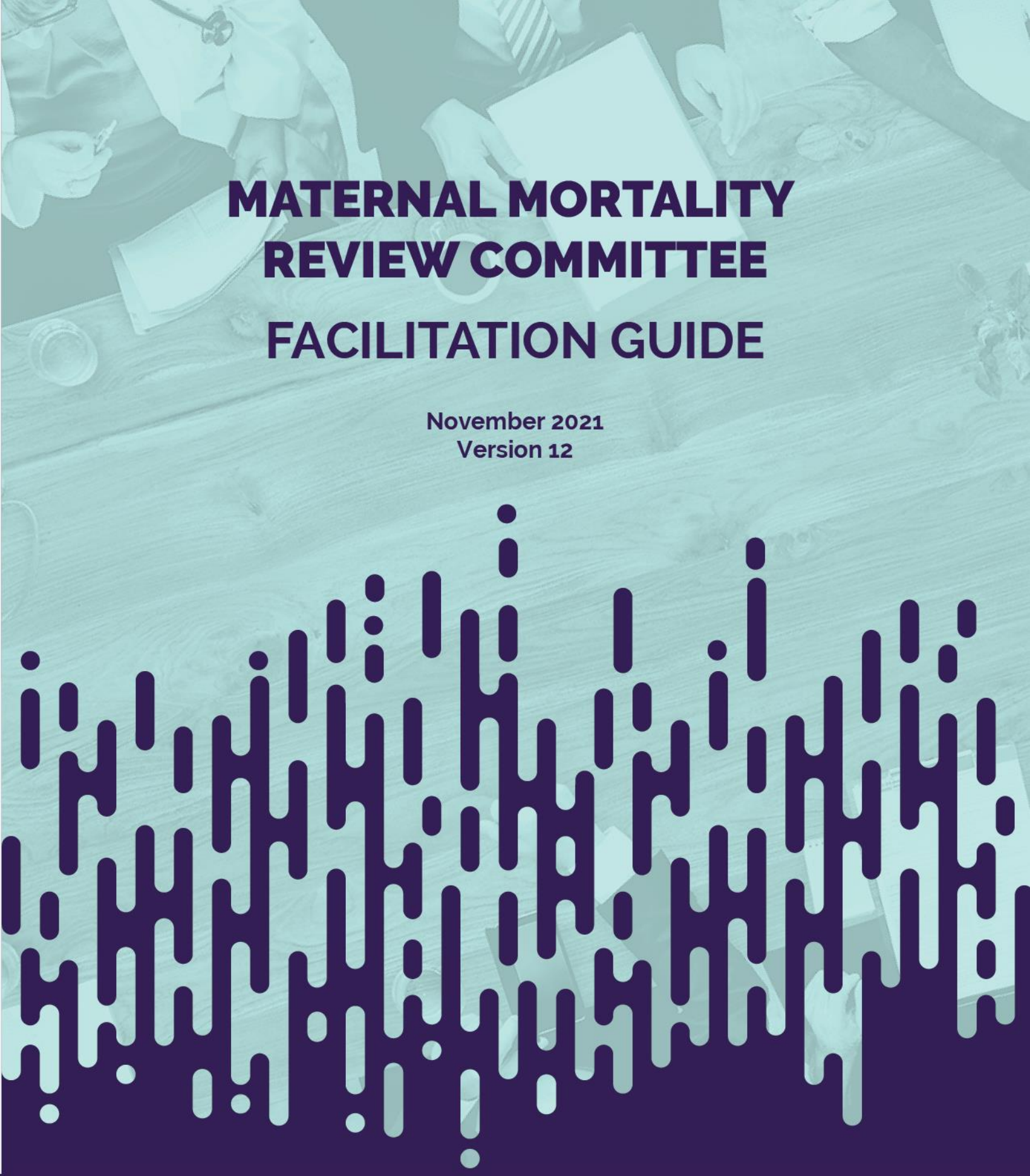

MATERNAL MORTALITY REVIEW COMMITTEE

FACILITATION GUIDE

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CDC

ERASE MM
Enhancing Reviews and Surveillance to Eliminate Maternal Mortality

MMRIA
MATERNAL MORTALITY REVIEW INFORMATION APP

CONTENTS

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On September 5, 2019, CDC announced the award of more than $45 million over five years to support the work of Maternal Mortality Review Committees (MMRC) through the *Enhancing Reviews and Surveillance to Eliminate Maternal Mortality* (ERASE MM) initiative. In 2021, Congress appropriated additional funds, increasing the overall support so that the ERASE MM program now funds review programs in 31 states. ERASE MM continues to provide technical assistance to all MMRCs and their work to identify maternal mortality prevention strategies.

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We would like to acknowledge the partners and CDC staff who significantly contributed to the content:

Deborah Burch, DNP, RN

ABSTRACTOR/COORDINATOR TRAINER

DEBORAH BURCH CONSULTING, LLC

David Goodman, MS, PhD

MATERNAL MORTALITY PREVENTION TEAM LEAD
DIVISION OF REPRODUCTIVE HEALTH

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

CENTERS FOR DISEASE CONTROL AND PREVENTION

Danielle Noell, APRN, NNP-BC, MSN

LEAD ABSTRACTOR PREGNANCY ASSOCIATED MORTALITY REVIEW

FLORIDA DEPARTMENT OF HEALTH

Amy St. Pierre, MBA

MATERNAL MORTALITY PREVENTION TEAM DEPUTY
DIVISION OF REPRODUCTIVE HEALTH

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

CENTERS FOR DISEASE CONTROL AND PREVENTION

Ifetayo White

PROFESSIONAL BIRTH AND POSTPARTUM DOULA

DIRECTOR OF CHOICES BIRTHING AND WELLNESS SUPPORT

Jennifer Wilkers, MPH

ORISE FELLOW

DIVISION OF REPRODUCTIVE HEALTH

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

CENTERS FOR DISEASE CONTROL AND PREVENTION

Julie Zaharatos, MPH

PARTNERSHIPS AND RESOURCES MANAGER
MATERNAL MORTALITY PREVENTION TEAM
DIVISION OF REPRODUCTIVE HEALTH

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

CENTERS FOR DISEASE CONTROL AND PREVENTION

Banyan Communications

ATLANTA | ST. LOUIS

INTRODUCTION

Maternal Mortality Review Committees have a sober and noble charge: determine preventability of individual deaths and recommend specific, feasible actions to prevent future deaths. By establishing and consistently following comprehensive and sound formal processes, you can maximize your committee's effectiveness and impact.[1,2]

This guide is intended to share best practices that will help Maternal Mortality Review Committees (MMRCs) establish processes for review. The guide is structured in the general order of steps a committee might take in conducting an actual review committee meeting. Your committee may choose to do things differently depending on your resources, committee makeup, and scope. Consider this document a tool to help you establish a strong foundation for committee facilitation from which to develop and build upon your own skills and experience.

1. For examples of committee successes, see Appendix L: MMRC Success Stories.
2. For examples to guide processes and outcomes, see Appendix A: Maternal Mortality Review Committee (MMRC) Logic Model.

MATERNAL MORTALITY REVIEW COMMITTEE (MMRC) FACILITATION

Authority and Protections Under Which Your Committee Operates

- **Are there specific legislative statutes** for your jurisdiction that address the maternal mortality review process? If so, are there any directives provided for data collection, committee review, and public reporting?
- **If there is broader legislation** under which the MMRC operates, take steps to assure the entire process has adequate protections[3] to foster full abstraction, review, and reporting.
- All members of the MMRC should be aware of **existing protections and authority.**
- Discussion of case narratives by the MMRC must adhere to **principles of confidentiality**[4], **anonymity, and objectivity.**

3. Adequate protections include authority to access data sources, protection of collected data, and immunity for committee members from subpoena. For more information, see Appendix B: Authorities and Protections Checklist.
4. A note on confidentiality: there will be cases reviewed in your committee with which a committee member may be personally familiar. Your committee should develop a policy on how to handle such cases. You may consider having those who are familiar with a case share their information with the Abstractor before the meeting. That committee member may then recuse themself from discussion during the meeting.

Scope, Mission, Vision, and Goals Established by Your Committee

When disseminating information and at the start of each committee meeting, review the scope, mission, vision, and goals established by your committee. It is helpful to define terms:

- **Pregnancy-related death:** a death during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.
- **Pregnancy-associated but NOT related death:** a death during pregnancy or within one year of the end of pregnancy from a cause that is *not related to pregnancy*.
- **Pregnancy-associated but UNABLE to determine pregnancy-relatedness death:** In some cases, teams may be unable to discern relatedness. This may be due to inadequate available information and may warrant sending the case back to the Abstractor for more information. This determination should only be made in rare circumstances as this data is unlikely to be used in aggregate.

Case reviews should be analyzed through the lens of established and prescribed authority under which your committee operates and in conjunction with committee member input.

- **Prioritize deaths to be abstracted and reviewed** based upon your purpose, scope, mission, vision, and goals.[5]
- **Periodically review your committee's priorities** to make sure they are still relevant and applicable.

5. For information on how to develop MMRC Purpose, Scope, Mission, Vision, and Goals, and an example, see Appendix C: MMRC Structure.

Membership

Maternal Mortality Review Committees consider both medical and non-medical contributors to deaths.

Committees should be comprised of individuals representing multiple disciplines and organizations that can promote understanding of both the medical and non-medical contributors to maternal mortality and help move recommendations to action.[6] Multiple disciplines can offer valuable perspectives. Building the trust of individual members is essential to a functional committee dynamic.[i,7] Adding new voices is an important growth opportunity for the committee and for the Committee Chair(s). The Committee Chair(s) are responsible for facilitating case presentation and review and must be mindful of each member's individual contribution to the whole.

Leadership and Staff

The staff and leadership that support Maternal Mortality Review Committees (MMRCs) are essential to the functioning and sustainability of the review.

- **Abstractor(s):** Case abstraction is the most time- and resource-intensive part of administering a MMRC. It requires an extensive amount of training. MMRCs should have one or more clinically trained Abstractors with a standing position on the committee rather than a rotating role. Learn more about considerations for hiring abstractors on ReviewtoAction.org.
- **Committee Chair(s):** The Committee Chair, or Co-Chairs, provide overall leadership to the committee. Responsibilities may include the following:
    - Facilitating case presentation and review, including participation of all committee members
    - Identifying, addressing, and preventing bias during case review
    - Ensuring development of data-driven recommendations

6. See Appendix D: Potential MMRC Members.
7. For more information refer to the Facilitating the Decision-Making Process section; Appendix K: Notes on Facilitative Group Leadership.

- Serving as committee representative at conferences and stakeholder meetings
- Other facilitator roles may include:
    - Assisting in review of pregnancy-associated cases provided by the Vital Records to determine which are within scope and should be referred for abstraction.
    - Helping the Coordinator(s) review case narratives 3-4 weeks prior to a meeting to ensure completeness and readiness for committee review. This has the added benefit of preparing the Committee Chair(s) to facilitate the deliberation. Reviewing case narratives in advance helps ensure that the right subject matter experts are present and engaged as well as providing prompts to empower more non vocal members to speak up. This facilitates a healthy multidisciplinary group dynamic and an efficient committee meeting.
    - Mapping contributing factors to complete and actionable recommendations i.e., **WHO** should do **WHAT**, **WHEN**?

- **Coordinator(s):** Coordinator(s) might take on some facilitation, meeting scheduling, and agenda setting responsibilities for review committee meetings. An Abstraction and Case Review Time Cost Estimator[ii] is available to assist committees in budgeting for abstraction and planning for the number and length of committee meetings necessary.[8] They may meet with Abstractors to prioritize cases and review the status of a case sent for abstraction. Coordinator(s) also ensure key committee documents, such as the policies and procedures and new member orientation materials, are updated and implemented. In addition, they may be responsible for coordinating activities to implement recommendations from review deliberations.
- **Epidemiologists and Data Analysts:** These staff members provide data analysis support for multiple stages of the review process. This might include identifying quality and validity issues among vital records or other case abstraction data sources. They analyze data from the review process, including qualitative and quantitative data documented in the CDC's Maternal Mortality Review Information Application (MMRIA), and support geographic or spatial analysis for the development of committee reports or other products. Epidemiologists may provide data analysis support for developing products from the reviews, such as fact sheets and reports. In most cases, these individuals are not exclusively dedicated to the review but assist the review among their other job duties.
- **Data Managers and IT:** Individuals with IT knowledge and experience can help the MMRC by ensuring that the data collection, analysis, and dissemination strategy of the MMRC, including use of MMRIA, adheres to the jurisdiction's data management and security policies.

8. See Abstraction and Case Review Time Cost Estimator

Sustainability

Considerations that facilitate sustainable committees include:

Committee member compensation/incentives: Most jurisdictions do not pay committee members to participate in the review proceedings. However, they may reimburse travel costs to attend meetings, provide meals, or apply to be an accredited continuing medical education (CME) provider so committee members can receive CME credits through their participation. The American Board of Obstetricians and Gynecologists (ABOG) officers Part IV maintenance of certification credit when an MMRC member who is an obstetrician attends at least 75% of meetings in a given year.[9] Consider that community members who participate in MMRCs may require compensation for meeting time. A compensation plan can ensure that community members feel supported to participate before, during, and after meetings.

- **Budget for printing and office supplies:** Maternal Mortality Review Committee (MMRC) meetings use a lot of paper. As such, printing and mailing costs should be included in a MMRC budget. The documents generated may include confidentiality agreements, case narratives, case review forms, and other handouts. The MMRC is also tasked with keeping key materials confidential and may invest in lockable briefcases, file cabinets, or web-based secure file storage and file transfer services that can be tracked in a virtual environment. The costs of server space, though very minimal for data storage, should also be considered.

9. For more information contact ERASEMM@cdc.gov.

- **Disseminating findings and taking action:** Convening partners to present the findings of the MMRC accelerates their implementation. Committees often overlook the funding required to disseminate findings (e.g., travel to present committee process and findings at professional conferences in and out of state) or the programmatic funding necessary to implement a key finding from the review into population-based action. Empowering members to assist with dissemination of findings can help to increase and maintain member engagement and ownership of the work.

Maintaining member engagement is facilitated by using the data for improvements; tangible evidence of the work of the review may be discussed, disseminated, and used to develop interventions.

Case Identification Process[10]

Many committee members find it beneficial to hear a brief overview of the process for identifying and selecting cases for abstraction and review at every meeting. This overview fosters engagement of committee members in the entire maternal mortality review process and offers a system of checks and balances to the identification and selection process. Items to consider for this discussion include the following:

- **Process for case identification** and selection for abstraction
  - Linkages used for case identification
- **Cases identified for review**
  - **Residency**: Cases are reviewed based on residency (address recorded on the death certificate). Although a person may die in a state or jurisdiction where they were not a resident, it is important for the committee in the jurisdiction of residence to review the death. In determining opportunities to prevent pregnancy-related deaths, the MMRC in the state of residence reviews and makes recommendations to improve all systems of care that touch a birthing person's life before, during, and after pregnancy. This also ensures clarity as to who takes ownership and responsibility for reviewing pregnancy-associated deaths in the United States. Otherwise, there could be a situation where deaths are double-counted, or worse, not counted at all.
- **Causes of death (COD)** listed on death certificate
- **Timing of death in relation to pregnancy:** death during pregnancy or number of days between birth and death
- **Basic demographics identified:** mother's age, race, ethnicity, marital status, place of birth, education, occupation, entry into prenatal care

10. For an example of case identification and data flows, see Appendix E: Sample Case Identification and Data Flow and Alternative Reporting.

- **If applicable, any multidisciplinary subcommittee preliminary classification of cases** (prior to abstraction),[11] i.e., possibly pregnancy-related death, pregnancy-associated but NOT -related death, not pregnancy-related or -associated
- **Cases referred to medical examiner** and number that received autopsy
- **Pregnancy outcomes,** such as live birth, fetal demise, and the number of surviving children

You may also consider reporting the above indicators to the committee as a comparison of cases selected and not selected for abstraction and review.

11. MMRCs may designate a subcommittee to preliminarily classify cases to be sent for abstraction. This group should reflect the multidisciplinary composition of the committee.

Observe a Moment of Silence

Take a moment of silence at the opening and closing of each review session to center the committee in the work that lies ahead. Observing a moment of silence honors the lives of those we lost. Holding space allows committee members an opportunity to reflect on the life experiences of those who passed, and the surviving loved ones who are forever changed by this loss. Reviewing deaths can be physically, mentally, and emotionally exhausting. Taking a moment of silence to reflect on the personal level of the work reemphasizes the committee's intention, motivation, focus, and commitment to the work ahead. Ending the review with a moment of silence allows members to reflect on the activities of the day and find consolation in the fact that what was learned about each death informed recommendations for improvements that may prevent future loss.

Self-Care Suggestions for MMRC Members

Remember that the weight of this work is not on any one person's shoulders. It is part of a greater network striving to save and improve lives. Health care professionals, social service providers, and community health workers who serve on MMRCs may experience the emotional trauma of reviewing loss after loss. Individuals who staff MMRCs, especially Abstractors and Data Analysts, may experience grief symptoms from continually reviewing courses of events that lead to a death. This is known as **vicarious trauma**, the cumulative results of repeated exposure to traumatized people or, in the instance of Abstractors and other MMRC members, the trauma of repeated reviews of death.

Trauma stewardship is a foundation for creating a self-care or wellness culture within organizations and committees. Trauma stewardship "refers to the entire conversation about how we come to do this work, how we are impacted by our work, and how we subsequently make sense of and learn from our experiences…By talking about trauma in terms of stewardship, we remember that we are being entrusted with people's stories and their very lives. We understand that this is an honor as well as a tremendous

responsibility…We are required to develop and maintain a long-term strategy for ourselves such that we can remain whole and helpful to others even amidst their greatest challenges."[iii]

Self-care suggestions for MMRCs include:

- **Increasing knowledge** about vicarious trauma
- **Accepting and acknowledging** that all team members face stress from reviews of maternal mortality
- **Supporting wellness** in MMRC members by ensuring that team members feel valued, respected, competent, connected, and able to openly share their feelings of vicarious trauma in a safe, nonjudgmental environment
- **Including an action item** on each meeting agenda for responding to the stress of the reviews
- **Taking short breaks** after each hour of the review for team members to move and short-circuit the buildup of stress and/or trauma in the body and mind
    - Leaving time at the end of each meeting to check in with members about what they are feeling, and perhaps include a sharing of gratitude from each member for some aspects of their work or role to contribute to a sense of connection.

Present a Case

Cases should be presented by a designated person who will highlight the relevant information needed by the committee to make their decisions. (See *MMRIA case narrative templates*.) Some committees ask the Abstractor who worked on the case to present as they are most familiar with it. Other committees choose to appoint a Coordinator(s), Committee Chair(s), or other committee facilitator to orient the committee to the case. If the Abstractor does not present, they should still be available at the meeting to answer questions and provide additional detail as needed. Regardless of who is presenting, it is beneficial to have a standard format and process for guiding committee review and discussion. Identify what information will be shared with MMRC members prior to and during the meeting.

- **Providing case narratives** to committee members in advance of the meeting helps ensure that any identified gaps in information are addressed prior to the meeting and reduces time required during the meeting for members to become familiar with the mother's story and the events leading to the death.
    - Having narratives available for review prior to the MMRC meeting allows the team to be prepared for efficient and effective discussions. Many find it helpful to distribute narratives electronically through secure, password protected systems, or via the Committee Member role in MMRIA. It is important to develop a secure and consistent procedure for sharing information in advance.
    - Disseminating narratives **at least** two weeks ahead of a meeting allows facilitators time to consider how to guide complex discussions.
    - Arriving prepared honors the mothers' lives and allows for the best use of precious meeting time.
        - **Tip:** consider sharing narratives three weeks in advance and requiring members to submit completed MMRIA Committee Decisions Form one week in advance.

- **Tip:** consider tallying submissions into a composite, pre-decisional MMRIA Committee Decisions Form to be presented for discussion and further refinement. This lends quieter members a voice in the discussion and facilitates a more efficient, effective, and timely deliberation.

- **Using a standardized format** for the development of narratives promotes ease of reading and understanding (see *MMRIA case narrative templates in the Abstractor Manual).*
- **Using the MMRIA Committee Decisions Form** efficiently and comprehensively guides committee members through the discussion and decision-making process.[12]
    - Additional guidance and resources on how to complete the MMRIA Committee Decisions Form can be found on the Review to Action website.

Introduction of Case: Things to Share

- **How** the case was first identified
- **Criteria used to select case for review** by committee (Does the case fit into the committee scope OR is there a special interest in reviewing this narrative?)
- **Consider listing** the available records for each decedent

Case Overview

- **Prior to meeting**, decide who will facilitate the discussion.
- Ensure that **someone is assigned** responsibility for:
    - Keeping the meeting within time parameters,
    - Keeping discussion on track,
    - Eliciting input from the entire committee membership, and

12. See Appendix G: MMRIA Committee Decisions Form

- Capturing and synthesizing committee decisions.

- **It may be useful** to have the individual who is assigned to record and synthesize committee deliberations enter notes directly into a form that is projected onto a screen during the meeting. This provides visual confirmation that committee recommendations are appropriately captured.
- **Provide copies** of the MMRIA Committee Decisions Form to members for each case and collect their notes to be sure that salient points are captured. This has the added benefit of allowing quieter members to have their voices heard. The person responsible for documenting committee decisions – usually a Coordinator or an Abstractor – should then review the collected forms and integrate written comments into notes captured at the meeting.

Facilitate the Decision-Making Process

Designate a Facilitator

Regardless of who presents cases, there should be a Committee Chair, or Co-Chairs, tasked with the role of Committee Facilitator to help guide the committee in its deliberations. Facilitative leadership promotes efficiency, effectiveness, and engagement of the committee members. Facilitator responsibilities may include the following:

- **Facilitating case review discussions**
    - Co-Chairs may alternate, i.e., a Maternal-Fetal Medicine Specialist Co-Chair may facilitate discussions on more non-clinical causes of death, while a Maternal Mental Health Specialist Co-Chair may facilitate discussions on more clinical causes of death, so that their counterpart may be part of the deliberation versus facilitating it.

- **Ensuring minimal personal bias**, and identifying, addressing, and preventing bias during review[13]
- **Ensuring complete and actionable, data-driven recommendations** i.e., documented in the **WHO** should do **WHAT WHEN** format
- **Engaging the participation of each group member** [14]

Facilitation is a unique skill. It requires effective management of committee dynamics, including a sense of how group members interact as individuals and as a whole. The Committee Facilitator must be an effective communicator, an active listener (paraphrases, summarizes, reflects) who inquires and seeks clarification in a non-critical manner, encourages authenticity, and maintains trust in the group.

Designate a Facilitation Team

In addition to a strong facilitator, Maternal Mortality Review Committees (MMRCs) need support positions as well. These positions should include a Coordinator(s), Abstractor(s),[15] and one or more Epidemiologists. Their responsibilities can vary between individual reviews.

All of these individuals may be assigned as notetakers during committee meetings. It is important to have multiple notetakers assigned to cover the MMRC meeting. After the meeting, notetakers may meet to ensure everyone is on the same page with the committee decisions captured. This is done prior to the Abstractors or designated staff member enters the committee decisions into MMRIA and finalizes/closes out the record.

13. For more tips on minimizing bias, see Appendix K: Notes on Facilitative Group Leadership.
14. For more tips on facilitating a committee, see Appendix K: Notes on Facilitative Group Leadership.
15. See Appendix F: Considerations for Hiring Abstractors

Use a Standard Process to Guide Decision-Making

Using a standard process has many benefits. CDC's Maternal Mortality Review Information Application (MMRIA) supports the MMRC process from case abstraction to deliberation. The MMRIA Committee Decisions Form[16] serves as a standard guide for the discussion and decision-making phase of the deliberation process:

- **Promotes consistent** and complete case review
- **Provides direction** and promotes efficiency of review
- **Enhances committee focus** and keeps case discussions on track
- **Corresponds to abstraction tools** to ensure seamless conversion from abstraction to review
- **Presents a reminder of priority data** elements and their application
- **Records committee findings** and recommended actions in a standard format
- **Fosters collection of data that is consistent** over time and with other reviews, supporting analysis over time and across reviews

Formalize Committee Decisions Using the MMRIA Committee Decisions Form

Before beginning, your committee will need to decide how decisions are made and lay out rules to guide this process. For each of the decisions, will a majority vote be sufficient? Or will consensus be required? Each process has its advantages and disadvantages. Consensus decision-making requires discussion and supports each member having a voice, ensuring engagement of the full committee, but it can also take more committee time. A majority vote can be a more efficient approach to decision-making, but minority voices may be lost. Members who feel their voices are never heard may disengage from the

16. See Appendix G: MMRIA Committee Decisions Form

committee. A committee may decide that some decisions are made by consensus, while others are by majority vote.

Pregnancy-Relatedness

Because the decision on pregnancy-relatedness is fundamental to the review and triggers a cascading pathway of decisions, this decision is one that most committees should identify as requiring consensus. Committee members determine whether the death was pregnancy-related or pregnancy-associated but NOT -related. If a consensus (or majority) cannot initially be reached, it can be helpful to review the case discussion for committee members.

- **Committee members should know** and understand the core definitions used for determining relatedness.
- **If the committee is unsure**, pose the following question: “If this person had not been pregnant would they have died?”
    - Answering ‘yes’ indicates that this is a pregnancy-associated but NOT -related case
    - Answering ‘no’ indicates a pregnancy-related case

Underlying Cause of Death

The underlying cause of death is the event that initiated a chain of events that ultimately resulted in the death. Because the underlying cause is the initiating event, it is the focus for committee decision-making and analysis of review committee data.

- **Specify what the committee determines** to be the underlying cause of death
    - MMRIA has a text field to capture the descriptive causes of death determined by the committee

- The descriptive underlying cause of death can be documented for both pregnancy-related deaths and deaths determined to be pregnancy-associated but NOT -related (PANR)

- **Document whether the committee agrees** with the cause of death listed on death certificate

PMSS-MM Underlying Cause of Death Code

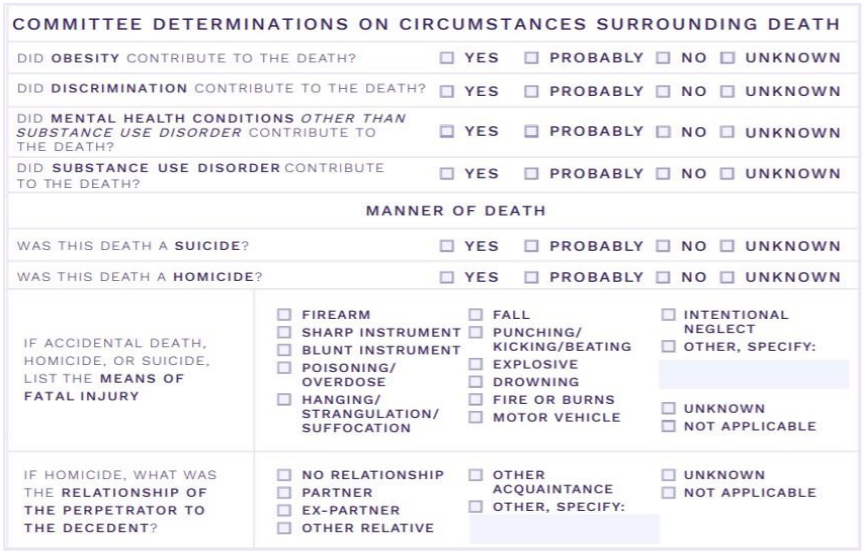
These codes are based on the Pregnancy Mortality Surveillance System (PMSS) underlying cause of death listing used to determine the national pregnancy-related mortality ratio. The PMSS underlying cause of death system was first established in 1986 by the American College of Obstetricians and Gynecologists and the CDC Maternal Mortality Study Group.

If a death is deemed pregnancy-related, assign the corresponding PMSS-Maternal Mortality (PMSS-MM) underlying cause of death code.

- **If the death was pregnancy-related**, assign the most detailed PMSS-MM code possible; for example, if you determine the cause of death is hypertrophic cardiomyopathy, select 80.2 Hypertrophic Cardiomyopathy, rather than 80 Cardiomyopathy.
    - These codes are intended for coding pregnancy-related deaths only. If the death was deemed pregnancy-associated **but not** pregnancy-related, the PMSS-MM codes are not applicable, and you can skip this decision.
    - Remember, your goal is to determine **one** underlying cause of death.

Committee Determination on Circumstances Surrounding Death

The following questions document other significant contributors to, and characteristics of, the death that may not be an underlying cause. These six questions should be answered regardless of whether the death was deemed pregnancy-related or pregnancy-associated but NOT -related.



COMMITTEE DETERMINATIONS ON CIRCUMSTANCES SURROUNDING DEATH					
DID **OBESITY** CONTRIBUTE TO THE DEATH?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
DID **DISCRIMINATION** CONTRIBUTE TO THE DEATH?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
DID **MENTAL HEALTH CONDITIONS** *OTHER THAN SUBSTANCE USE DISORDER* CONTRIBUTE TO THE DEATH?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
DID **SUBSTANCE USE DISORDER** CONTRIBUTE TO THE DEATH?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
MANNER OF DEATH					
WAS THIS DEATH A **SUICIDE**?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
WAS THIS DEATH A **HOMICIDE**?	☐ YES	☐ PROBABLY	☐ NO	☐ UNKNOWN	
IF ACCIDENTAL DEATH, HOMICIDE, OR SUICIDE, LIST THE **MEANS OF FATAL INJURY**	☐ FIREARM ☐ SHARP INSTRUMENT ☐ BLUNT INSTRUMENT ☐ POISONING/ OVERDOSE ☐ HANGING/ STRANGULATION/ SUFFOCATION	☐ FALL ☐ PUNCHING/ KICKING/BEATING ☐ EXPLOSIVE ☐ DRowning ☐ FIRE OR BURNS ☐ MOTOR VEHICLE	☐ INTENTIONAL NEGLECT ☐ OTHER, SPECIFY: ☐ UNKNOWN ☐ NOT APPLICABLE		
IF HOMICIDE, WHAT WAS THE **RELATIONSHIP OF THE PERPETRATOR TO THE DECEDENT**?	☐ NO RELATIONSHIP ☐ PARTNER ☐ EX-PARTNER ☐ OTHER RELATIVE	☐ OTHER ACQUAINTANCE ☐ OTHER, SPECIFY:	☐ UNKNOWN ☐ NOT APPLICABLE		

- **Committee determinations** on circumstances surrounding death checkboxes refer to the decedent's own experience. For example, in the case of a homicide death the question of whether mental health conditions contributed to the death does not refer to the perpetrator's mental health.
- **Additional information on discrimination**, interpersonal racism, or structural racism may be documented using the Contributing Factors Worksheet on page 2 of the MMRIA Committee Decisions Form
- **Substance use disorder** should be captured separately from other mental health conditions
    - This checkbox refers to 'substance use disorder', not just substance use. The committee should only choose 'yes' or 'probably' if there is indication of a

substance use disorder diagnosis or an expert on the committee (e.g., psychiatrist, psychologist, licensed counselor) who feel the criteria for a diagnosis of substance use disorder are met based on the available information.

- The checkbox should only be marked ‘yes’ if the committee decides the substance use disorder was a contributing factor in the death. If the decedent had a substance use disorder but this did not contribute to the death, the checkbox should be marked ‘no’.
- A diagnosis should ideally be indicated in the decedent’s medical records. However, this may underestimate the number of people with substance use disorder or mental health conditions if individuals are unable to access care or treatment. Refer to your review committee subject matter experts (e.g., psychiatrist, psychologist, licensed counselor) to determine whether the criteria for a diagnosis of substance use disorder or another mental health condition are met based on the available information.

- If the committee determines a death was an **accidental death, homicide, or suicide**, they should also determine the means of fatal injury to be recorded on the MMRIA Committee Decisions Form.
    - Unintentional and intentional overdoses should be recorded as poisoning/overdose.
    - If the committee determines a death was a homicide, they should also record the relationship of the perpetrator to the decedent on the MMRIA Committee Decisions Form. The means of fatal injury checkbox should also be filled out for all homicides.
    - Checkboxes are intended to the capture the committee decisions. If a death is not reviewed by the committee because the committee determined that the case

was not pregnancy-related and therefore out of the scope of full review, the checkboxes should not be completed.

- It is expected that sometimes committee decisions may differ from the death record. For example, an overdose may be deemed accidental on the death certificate, but relevant subject matter experts (e.g., mental health expert), could review additional information and determine that the overdose was intentional. The committee would then check 'yes' for the suicide checkbox. There is also a question on the MMRIA Committee Decisions Form to indicate whether the committee agrees with the cause of death listed on the death certificate.

- **There are many opportunities** to use committee determinations on circumstances surrounding death collected through the checkbox data. For example, all pregnancy-related overdoses with indication of substance use disorder should have an underlying cause of death PMSS-MM code of 100.5. If 'substance use disorder' checkbox is 'yes', but the PMSS-MM code is 88.2 (Unintentional Injury), there may be discrepancies in how the committee is interpreting underlying cause and selecting the PMSS-MM code.

  - The substance use disorder circumstances surrounding death checkbox can be used to pull pregnancy-associated overdose deaths data for further analysis. Overdose deaths are also identified by the means of fatal injury "Poisoning/Overdose" checkbox.
  - An opportunity for data quality improvement is to compare the obesity checkbox with the decedent's actual body mass index (BMI) calculated using the height and weight provided in the records. Are there instances where your committee is selecting 'yes' when the BMI suggests a healthy weight? Of note—this checkbox is intended to capture whether obesity contributed to the death, NOT whether the individual was obese/obesity was present.

- A high BMI may be a source of stigma leading to discrimination and victim-blaming. Completing this checkbox may help assess using aggregate analysis how often obesity actually contributes to deaths. Such an analysis could disentangle obesity prevalence from contribution to maternal mortality.

Preventability and Chance to Alter Outcome[17]

These two questions help drive the development of actionable recommendations and support prioritization[18] among recommended actions:

The first decision says nothing about the degree of preventability, and a 'yes' simply indicates there was at least some chance. The second decision speaks to the specific degree to which the death was potentially preventable. Either decision is useful alone but when used together can better support prioritizing areas for the committee to recommend action. The most frequent underlying causes of death may not be the most preventable, and within those that are the most preventable, there is a range of opportunity for prevention. Used together, these decisions help committees to identify the best opportunities for recommended action.

- **Preventability provides a framework** of prioritization for recommendations
  - Preventability determinations are often a reflection of MMRC composition. Multidisciplinary MMRCs have a greater understanding of opportunities to prevent deaths.

17. The committee may not be ready to label a case pregnancy-related or preventable when they reach these components on the MMRIA Committee Decisions Form. It is not uncommon for committee members to want to jump ahead or request to go back to gain clarity on certain data points, review the flow of events, or further explore details. To ensure that all points are captured, a facilitator should repeat back each decision that was made to ensure all thoughts have been captured before moving on.

- It may be helpful to first discuss the factors that contributed to the death, and recommendations to address those contributing factors to determine preventability.
- Inadequate information can make any determination difficult. It's important not to resort to speculation, to stay on task, and to admit that you don't know what you don't know. The facilitator may direct the committee to move on.

- **Addressing medical factors alone** will not get us to the reductions we want to achieve in maternal mortality. To broaden this medical perspective, committees must document factors and recommendations *at all levels* (Patient/Family, Provider, Facility, System and Community). Multidisciplinary review promotes understanding of patient-, community-, and system-level factors, preventability at each level, as well as development of actionable recommendation at all levels.
    - An actionable recommendation is mapped to a contributing factor and is structured as follows: [**WHO**] should [do **WHAT**], [**WHEN**/**WHERE**?]
    - A diversity of voices at the table provide greater perspective on system-level factors that may influence factors such as late entry into prenatal care.

Structure of an actionable recommendation

WHO is the entity/agency who is responsible for the intervention?*	**WHAT** is the intervention and **WHERE** is the intervention point? ○ Patient/Family ○ Provider ○ Facility ○ System ○ Community	**WHEN** is the proposed intervention point?* • Among women of reproductive age (preconception) • In pregnancy and in the postpartum period ○ Labor & Delivery (L&D) ○ Prior to L&D hospitalization discharge ○ First 6 weeks postpartum ○ 42-365 days postpartum

*Enter recommendation at the relevant level (Patient/Family, Provider, Facility, System, Community)

Contributing Factors

Completion of this section should be guided by the mission and scope of the review committee.

- **Your committee should decide** whether to complete this section only for pregnancy-related deaths or for all pregnancy-associated deaths. This should be consistent with your committee's mission and scope.
- **Using the Contributing Factors list** on the MMRIA Committee Decisions Form, identify all factors that the committee determines contributed to the death.
- **Align each Contributing Factor** with a corresponding Factor Level. Provide a description explaining the Contributing Factor and Factor Level to document more specifically the Contributing Factor, and how it aligns with corresponding recommendations when you develop a report and translate your findings to action.

Definition of Levels

- **Patient/Family:** An individual before, during or after a pregnancy, and their family, internal or external to the household, with influence on the individual
- **Provider:** An individual with training and expertise who provides care, treatment, and/or advice
- **Facility:** A physical location where direct care is provided - ranges from small clinics and urgent care centers to hospitals with trauma centers
- **System:** Interacting entities that support services before, during, or after a pregnancy - ranges from healthcare systems and payors to public services and programs
- **Community:** A grouping based on a shared sense of place or identity – ranges from physical neighborhoods to a community based on common interests and shared circumstances

Committee Recommendations

This question can help review committees move to case-specific recommendations:

- **If there was at least some chance** that the death could have been averted, were there specific and feasible actions which, if *implemented* or *altered*, might have changed the course of events?

An attempt should be made by the committee to develop a recommendation for each contributing factor identified. Recommendations are most effective when they are specific and actionable, i.e., [**WHO**] should [do **WHAT**] [**WHEN**]. Recommendations should address who is responsible to act, and when. The phrasing of recommendations should be in actionable terms.

FOR EXAMPLE:

- If the underlying cause of death was determined to be related to a mental health condition (e.g., substance use disorder) and an identified contributing factor was lack of provider assessment – specifically not screening for substance use disorder during prenatal care, then:
    - An ineffective recommendation would be: Better substance use disorder screening.
    - An actionable recommendation would be: Prenatal care providers should screen all patients for substance use disorder at their first prenatal visit.

Additional space is provided on page 5 of the MMRIA Committee Decisions Form (Appendix G), as Contributing Factors may be noted at more than one level. They may also have more than one Committee Recommendation. Repeat Contributing Factors for as many Recommendations that are documented.

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)
Did not use interpretive services	Policies/ procedures	FACILITY	Facilities should implement and adhere to utilization of official translation services			
Did not use interpretive services	Policies/ procedures	FACILITY	Obstetric providers should complete and adhere to Culturally and Linguistically Appropriate Services (CLAS) standards			

Just as there may be more than one recommendation for each Contributing Factor, there may be recommendations that address more than one Contributing Factor. Repeat each Recommendation alongside each Contributing Factor it addresses.

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)
Inadequate mental health intervention (medication-only)	Clinical Skill/ Quality of Care	PROVIDER	Obstetric provider/clinic should ensure coordination of care with other treating providers			
Discharge without primary care provider follow-up or OB and MAT care coordination	Continuity of Care/Care Coordination	PROVIDER	Obstetric provider/clinic should ensure coordination of care with other treating providers			

To align the Level of determination for Contributing Factors with accompanying Committee Recommendations, it may be helpful to encourage committee members to jot down Contributing Factor descriptions first, as shown here:

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)
Did not screen for intimate partner violence (IPV)						

Enter accompanying Committee Recommendation that addresses the Contributing Factor,

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)
Did not screen for intimate partner violence (IPV)			Obstetric provider should screen for IPV, depression, housing stability, and nutritional needs and provide referrals to community			

then assign the Contributing Factor category from the drop-down list. Refer to Contributing Factor descriptions provided on page 4 of the MMRIA Committee Decisions Form.

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)
Did not screen for intimate partner violence (IPV)	Clinical Skill/ Quality of Care		Obstetric provider should screen for IPV, depression, housing stability, and nutritional needs and provide referrals to community			

Now enter the Level based on **WHO** has the power to prevent the Contributing Factor.

This can help teams avoid heaping so many Contributing Factors that manifest at the Patient Level where the actionable recommendation does not reside.

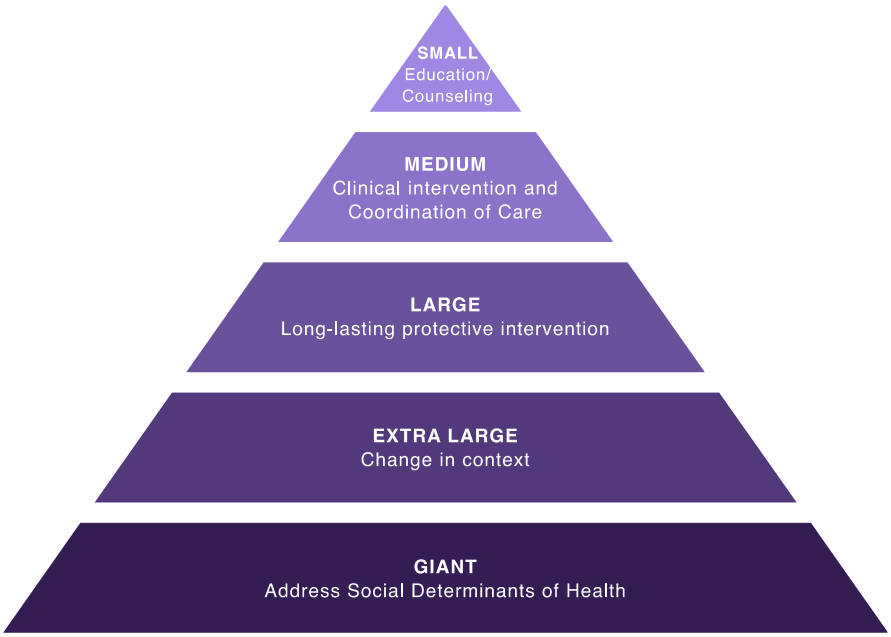
Prevention Type

For each recommendation that your committee makes, determine the Level of prevention that is achievable if implemented. Like preventability decisions, this determination helps the committee to prioritize actionable recommendations. The Levels of prevention are:

- **Primary**: Prevents the contributing factor before it ever occurs.
- **Secondary:** Reduces the impact of the contributing factor once it has occurred (i.e., treatment).
- **Tertiary**: Reduces the impact or progression of an ongoing contributing factor once it has occurred (i.e., management).
    - Recommendations that support primary prevention may be prioritized over those that support secondary or tertiary prevention. It should not be the goal of the committee, however, to always or only think of primary or secondary prevention opportunities, which are not common (especially primary prevention).

Expected Impact

For each recommendation your committee makes, determine what the expected impact level would be if the recommendation was implemented.[19] Use the following as a guide, which was adapted from former CDC Director Tom Frieden's Health Impact Pyramid.[iv]



A comprehensive strategy to reduce maternal mortality would include interventions at multiple levels of the pyramid.

The base of the pyramid addresses social determinants of health. Actions aimed toward the pyramid base have greater impact population-wide and require less individual effort. However, they require a large and sustained amount of engagement with decisionmakers and are thus often difficult to enact. Actions aimed toward the top of the pyramid work at the individual level but depend on a person-by-person individual behavioral change.

Some examples of interventions at each level:

19. This determination may be made by the full committee or, for the sake of time, by a smaller group (i.e., committee leadership or a subcommittee responsible for moving recommendations to action).

- **Small**: Education/counseling (community- and/or provider-based health promotion and education activities)
- **Medium**: Clinical intervention and coordination of care, across continuum of well-woman visits (protocols, prescriptions)
- **Large**: Long-lasting protective intervention (improve readiness, recognition, and response to obstetric emergencies/LARC; increase coverage of postpartum care visits for one-year post-delivery)
- **Extra-Large**: Change in context (promote environments that support healthy living/ensure available and accessible services)
- **Giant**: Address social drivers of health (poverty, inequality, etc.)

Classifying Prevention Type and Expected Impact helps your data analyst prioritize findings and recommendations. They can use this in combination with Preventability and Chance to Alter Outcome determinations and qualitative analysis methods to prioritize among recommended actions.[20]

Conclude by Providing a Recap of Cases Reviewed

After you finished the case reviews and before you adjourn your meeting, consider recapping the accomplishments of the meeting with your committee members. You may utilize MMRIA to project a basic summary report or statement, such as the following:

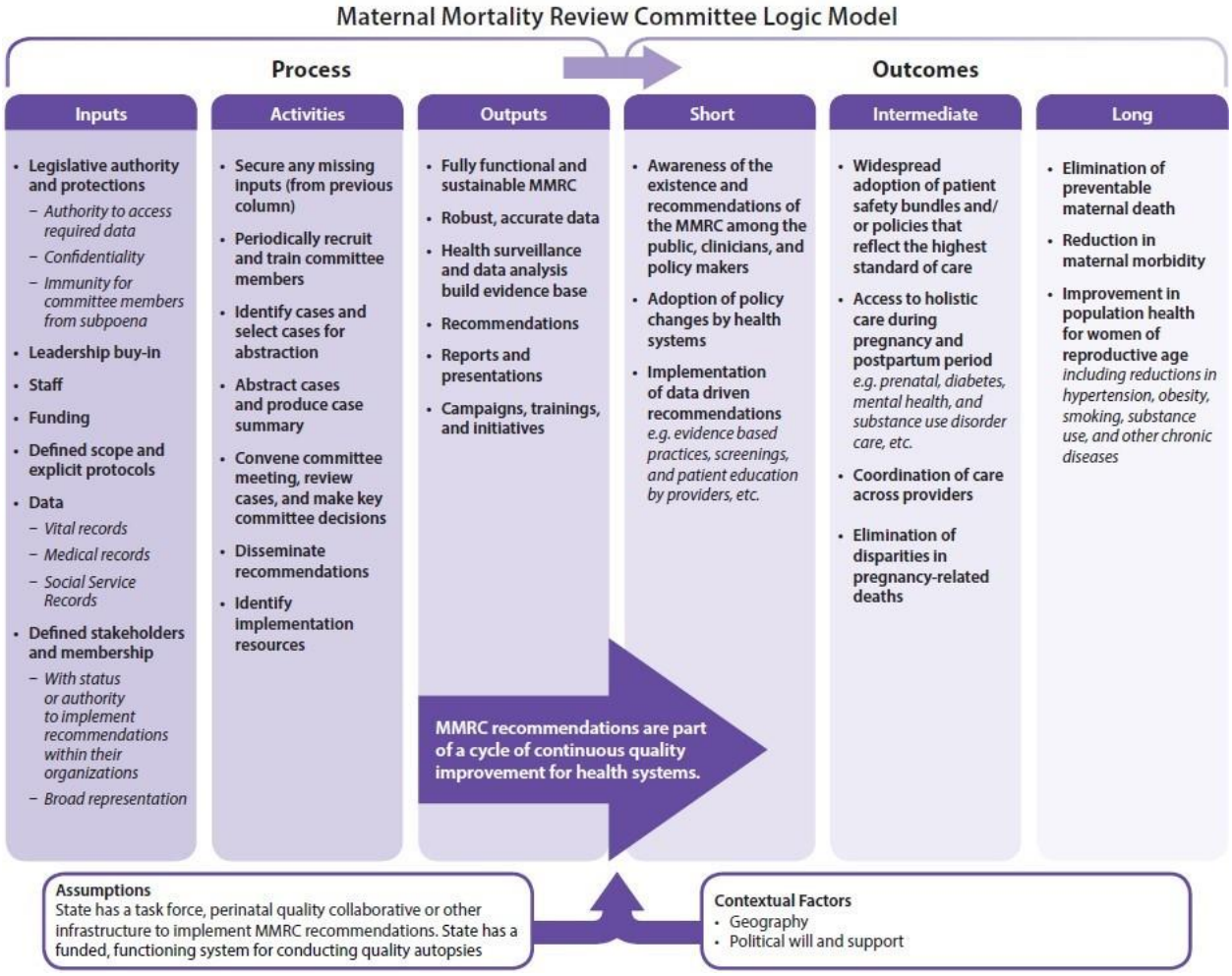
> Today we reviewed ___ **(NUMBER)** cases. We determined ___ **(NUMBER)** were pregnancy-related, ___ **(NUMBER)** were pregnancy-associated but not -related, ___ **(NUMBER)** were **(OTHER)**. We determined ___ **(NUMBER)** to be preventable, and we made the following recommendations: _____.

20. To learn more about prioritizing recommendations visit the Qualitative Analysis Resource Guide for MMRIA Users at https://reviewtoaction.org/national-resource/qualitative-analysis-resource-guide-mmria-users.

CONCLUSION

Skillful facilitation of committee review is an essential component of a Maternal Mortality Review Committee's success. Using this guide with consideration to your committee's scope, composition, and jurisdiction context provides a strong foundation for your committee. Moving forward, your committee can consistently conduct effective reviews by establishing and following reliable structures and processes. Your careful work, through your recommendations, has the potential to impact everything from the care a person receives from their providers to the environmental determinants of health in their community. Though this is challenging, it is critical work. Your committee has the potential to save many mothers' lives and in so doing, help keep families together, help communities to raise healthier children, and improve health and well-being across the United States.

APPENDIX A: MATERNAL MORTALITY REVIEW COMMITTEE (MMRC) LOGIC MODEL



APPENDIX B: AUTHORITIES AND PROTECTIONS CHECKLIST

Efforts to establish or strengthen a Maternal Mortality Review Committee (MMRC) should include a review of what protections and authorities are already in place. The purpose of the MMRC is not to assign blame to individual providers or hospitals but to look for opportunities to prevent maternal mortality within and across cases and across multiple levels of intervention. It is distinct from and not a substitute for hospital peer review committees, root cause analysis, or complaint investigations. Authority and protections for MMRCs must protect the intent of the public health surveillance process.

The "Building US Capacity to Review and Prevent Maternal Deaths" initiative developed a short video on the steps to establish an MMRC. This video is useful in educating individuals about MMRCs.

What are some key components to consider?

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
1. AUTHORITY TO ACCESS DATA	Abstractors should be able to collect at a minimum vital records, hospitalization and prenatal care records, and autopsy reports. Other desirable data sources include interviews with family	WASHINGTON: *(5) The department of health shall review department available data to identify maternal deaths. To aid in determining whether a maternal death was related to or aggravated by the pregnancy, and whether it was preventable, the department of health has the authority to: (a) Request and receive data for specific maternal deaths including, but not limited to, all medical records, autopsy reports, medical examiner reports, coroner reports, and social service records; and (b) Request and receive data as described in (a) of this subsection from*

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
	members or police reports. Pointing to clear authority in legislation can facilitate compliance with data requests.	*health care providers, health care facilities, clinics, laboratories, medical examiners, coroners, professions and facilities licensed by the department of health, local health jurisdictions, the health care authority and its licensees and providers, and the department of social and health services and its licensees and providers.* *(6) Upon request by the department of health, health care providers, health care facilities, clinics, laboratories, medical examiners, coroners, professions and facilities licensed by the department of health, local health jurisdictions, the health care authority and its licensees and providers, and the department of social and health services and its licensees and providers must provide all medical records, autopsy reports, medical examiner reports, coroner reports, social services records, information and records related to sexually transmitted diseases, and other data requested for specific maternal deaths as provided for in subsection (5) of this section to the department.*

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
2. CONFIDENTIALIATY AND PROTECTION OF COLLECTED DATA, PROCEEDINGS, AND ACTIVITIES	Confidentiality for MMRCs refers to the legal protection of information collected as part of the review process and the protection of the MMRCs discussions and findings from discovery or subpoena. Strong confidentiality protections can facilitate participation in reviews and the sharing of data and information.	GEORGIA: *(e)(1) Information, records, reports, statements, notes, memoranda, or other data collected pursuant to this Code section shall not be admissible as evidence in any action of any kind in any court or before any other tribunal, board, agency, or person. Such information, records, reports, statements, notes, memoranda, or other data shall not be exhibited nor their contents disclosed in any way, in whole or in part, by any officer or representative of the department or any other person, except as may be necessary for the purpose of furthering the review of the committee of the case to which they relate. No person participating in such review shall disclose, in any manner, the information so obtained except in strict conformity with such review project.* *(2) All information, records of interviews, written reports, statements, notes, memoranda, or other data obtained by the department, the committee, and other persons, agencies, or organizations so authorized by the department pursuant to this Code section shall be confidential.* *(f)(1) All proceedings and activities of the committee under this Code section, opinions of members of such committee formed as a result of such proceedings and activities, and records obtained, created, or maintained pursuant to this Code section, including records of interviews, written reports, and statements procured by the department or any other person, agency, or organization acting jointly or under contract with the*

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
		department in connection with the requirements of this Code section, shall be confidential and shall not be subject to Chapter 14 of Title 50, relating to open meetings, or Article 4 of Chapter 18 of Title 50, relating to open records, or subject to subpoena, discovery, or introduction into evidence in any civil or criminal proceeding; provided, however, that nothing in this Code section shall be construed to limit or restrict the right to discover or use in any civil or criminal proceeding anything that is available from another source and entirely independent of the committee's proceedings.

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
3. IMMUNITY FOR COMMITTEE MEMBERS	Immunity protects MMRC members as well as any witnesses or others providing information from personal liability based on activities during the review process. Immunity facilitates full participation in the review process.	GEORGIA: *(2) A health care provider, health care facility, or pharmacy providing access to medical records pursuant to this Code section shall not be held liable for civil damages or be subject to any criminal or disciplinary action for good faith efforts in providing such records.* *(2) Members of the committee shall not be questioned in any civil or criminal proceeding regarding the information presented in or opinions formed as a result of a meeting or communication of the committee; provided, however, that nothing in this Code section shall be construed to prevent a member of the committee from testifying to information obtained independently of the committee or which is public information.*
4. REGULAR REPORTING AND DISSEMINATION OF FINDINGS	Specifying how often and to whom/to what entity the MMRC will report its findings and recommendations helps keep MMRC as a public health priority for the state and facilitates dissemination of best practices.	GEORGIA: (g) Reports of aggregated non-individually identifiable data shall be compiled on a routine basis for distribution in an effort to further study the causes and problems associated with maternal deaths. Reports shall be distributed to the General Assembly, health care providers and facilities, key government agencies, and others necessary to reduce the maternal death rate.

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
5. MULTIDISCIPLINARY COMMITTEE WITH LOCAL INPUT	The MMRC members should represent a variety of clinical and psychosocial specializations and members working in and representing diverse communities and from differing geographic regions in the state. Specifying committee membership facilitates diversity and inclusion of key stakeholder groups.	TEXAS: In appointing members to the task force, the commissioner shall: 1. include members: a) working in and representing communities that are diverse with regard to race, ethnicity, immigration status, and English proficiency; and b) from differing geographic regions in the state, including both rural and urban areas; 2. endeavor to include members who are working in and representing communities that are affected by pregnancy-related deaths and severe maternal morbidity and by a lack of access to relevant perinatal and intrapartum care services; and 3. ensure that the composition of the task force reflects the racial, ethnic, and linguistic diversity of this state.
6. ABILITY TO SHARE DE-IDENTIFIED DATA AND FINDINGS LOCALLY AND REGIONALLY	Flexible authority for limited access to MMRC data for research and to collaborate with other jurisdictions helps MMRCs overcome challenges presented by identification of trends	CONNECTICUT: …the Department of Public Health may exchange personal data for the purpose of medical or scientific research, with any other governmental agency or private research organization; provided such state, governmental agency or private research organization shall not further disclose such personal data. TENNESSEE: (2) The state team:

COMPONENT	RATIONALE AND OBJECTIVE	EXAMPLE
	from small caseloads or cases where the place of residence and place of death are in different states, and to participate in activities to advance regional or national priorities in maternal mortality prevention.	… (B) May share information with other public health authorities or their designees as the state team may determine necessary to achieve the goals of the program. (b) The state team may request that persons with direct knowledge of circumstances surrounding a particular fatality provide the state team with information necessary to complete the review of the particular fatality; such persons may include healthcare providers or staff involved in the care of the woman or the person who first responded to a report concerning the woman.

Questions about MMRCs? Please contact Julie Zaharatos at CDC, Andria Cornell at AMCHP, and Kathryn Moore at ACOG. ACOG has a state toolkit with additional examples.

APPENDIX C: MMRC STRUCTURE

Developing the Foundations[v]

Purpose

- **Purpose statements** explain the “why” of committee facilitation. What is the significance of forming the committee?

> The purpose of the review is to determine the causes of maternal mortality in <state> and identify both medical and non-medical interventions to improve systems of care.

Scope

- **Determine the scope** of pregnancy-associated deaths you will and will not review. Each project's product and/or service is unique and requires its own careful balance of practices, processes, tools, and techniques, etc., to ensure the required work is completed as agreed upon by key project stakeholders. The sum of these along with the product and/or service to be delivered by the project is known as the scope.[vi]

> The scope of case review is all pregnancy-associated deaths or any deaths during or within one year of pregnancy, regardless of cause (i.e., motor vehicle accidents during pregnancy, motor vehicle accidents, postpartum, suicide, homicide). Deaths are identified from review of death certificates with a pregnancy checkbox selection and linkage of vital records by searching death certificates of women of reproductive age and matching them to birth or fetal death certificates in the year prior.

Mission

- **Mission statements** are derived from the purpose and answer the “what” and “how” questions. The mission statement should be:
  - Capturing the unique characteristics of the committee
  - General enough to allow for innovation and expansion yet narrow enough to provide direction
  - Enduring (not written in stone but remain stable over a period of time)
  - Including the geographical area that the committee will target

- **Preventing Mission Creep:**
  - Are we **not doing** things that we should be doing?
  - Are we doing things that we **should not** be doing?
  - Are we doing things that we should be doing but **not** in the right manner?

> The mission of the <state> Maternal Mortality Review Committee is to identify pregnancy-associated deaths, review those caused by pregnancy complications and other causes, and identify the factors contributing to these deaths and recommend public health and clinical interventions that may reduce these deaths and improve systems of care.
>
> The mission is to increase awareness of the issues surrounding pregnancy-related death and to promote change among individuals, healthcare systems, and communities to reduce the number of deaths.

Vision

- **Vision statements** provide a future picture of what the committee hopes to accomplish
  - Expression of hope and inspiration (not just goals that you wish to achieve)
- **Development of a vision** should incorporate:
  - Understanding the history (of issue, organization, and committee)
  - Group perception of opportunities present in the environment
  - Understanding the strategic capacity of the organization/committee[v]

The Maternal Mortality Review Committee's vision is to eliminate preventable deaths, reduce maternal morbidities, and improve population health for women of reproductive age in <state>.

Goals

- **The purpose, vision, and mission** drive the development of the goals
    - Each goal should therefore be focused on areas that are critical to accomplishing the purpose and mission to reach the vision

The goals of the Maternal Mortality Review Committee are to:

- **Perform thorough record abstraction** to obtain details of events and issues leading up to a death.
- **Perform a multidisciplinary review of case narratives** to gain a holistic understanding of the issues.
- **Determine the annual number of deaths related to pregnancy** (pregnancy-related mortality).
- **Identify trends and risk factors** among pregnancy-related deaths in <state>.
- **Recommend improvements to care** at the individual, provider, and system levels with the potential for reducing or preventing future events.
- **Prioritize findings and recommendations** to guide the development of effective preventive measures.
- **Recommend actionable strategies for prevention** and intervention.
- **Disseminate the findings and recommendations** to a broad array of individuals and organizations.
- **Promote the translation of findings and recommendations** into quality improvement actions at all levels.

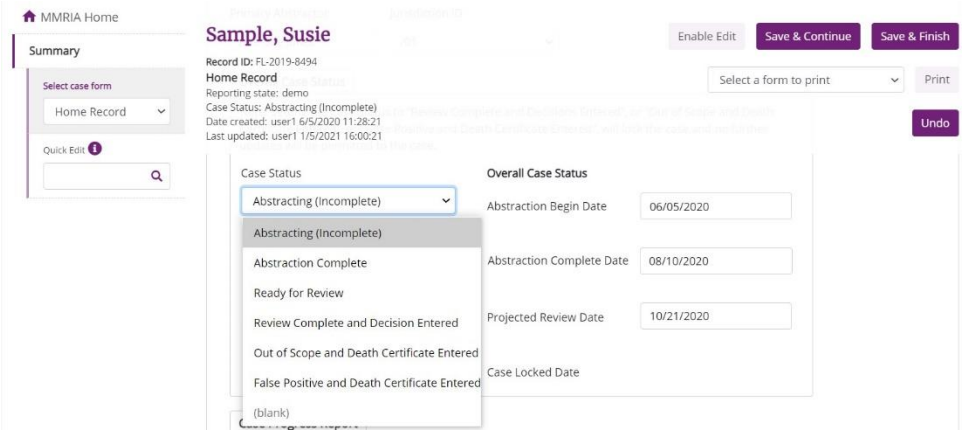
Membership

The <state> Maternal Mortality Review Committee is a multidisciplinary committee whose geographically diverse members represent various specialties, facilities, and systems that interact with and impact maternal health. At any one time, the committee consists of approximately <__> members who commit to serve a <renewable> <__> -year term.

Process

Information is gathered from death certificates, birth certificates, medical and non-medical records, autopsy reports, and other pertinent resources. Records are abstracted into MMRIA by a trained nurse Abstractor, who prepares de-identified case narratives for review by a committee of experts from diverse disciplines.

- **Overall Case Status View in MMRIA**



Meeting Structure

Maternal Mortality Review Committees review and make decisions about each case based on the case narrative and abstracted data. The committee examines the cause of death and contributing factors, and determines:

- Was the death **pregnancy-related?**
- **If pregnancy-related,** what was the underlying cause of death? (PMSS-MM)
- Was the death **preventable?**
- **What were the contributing factors** to the death?
- What **specific and feasible recommendations** for action should be taken to prevent future deaths?
- What is the **anticipated impact of those actions** if implemented?

APPENDIX D: POTENTIAL MMRC MEMBERS

Organizations

- Academic Institutions
- Behavioral Health Agencies
- Blood Banks
- Community-Based Doula Program
- Federally Qualified Health Centers
- FIMR/CDR Programs
- Healthy Start Agencies
- Homeless Services
- Hospitals/Hospital Associations
- Local WIC Program
- Private and Public Insurers
- Professional Assoc. State Chapters
- Rural Health Associations
- State Medicaid Agency
- State Medical Society
- State Title V Program
- State Title X Program
- Tribes/Tribal Organizations
- Violence Prevention Agencies

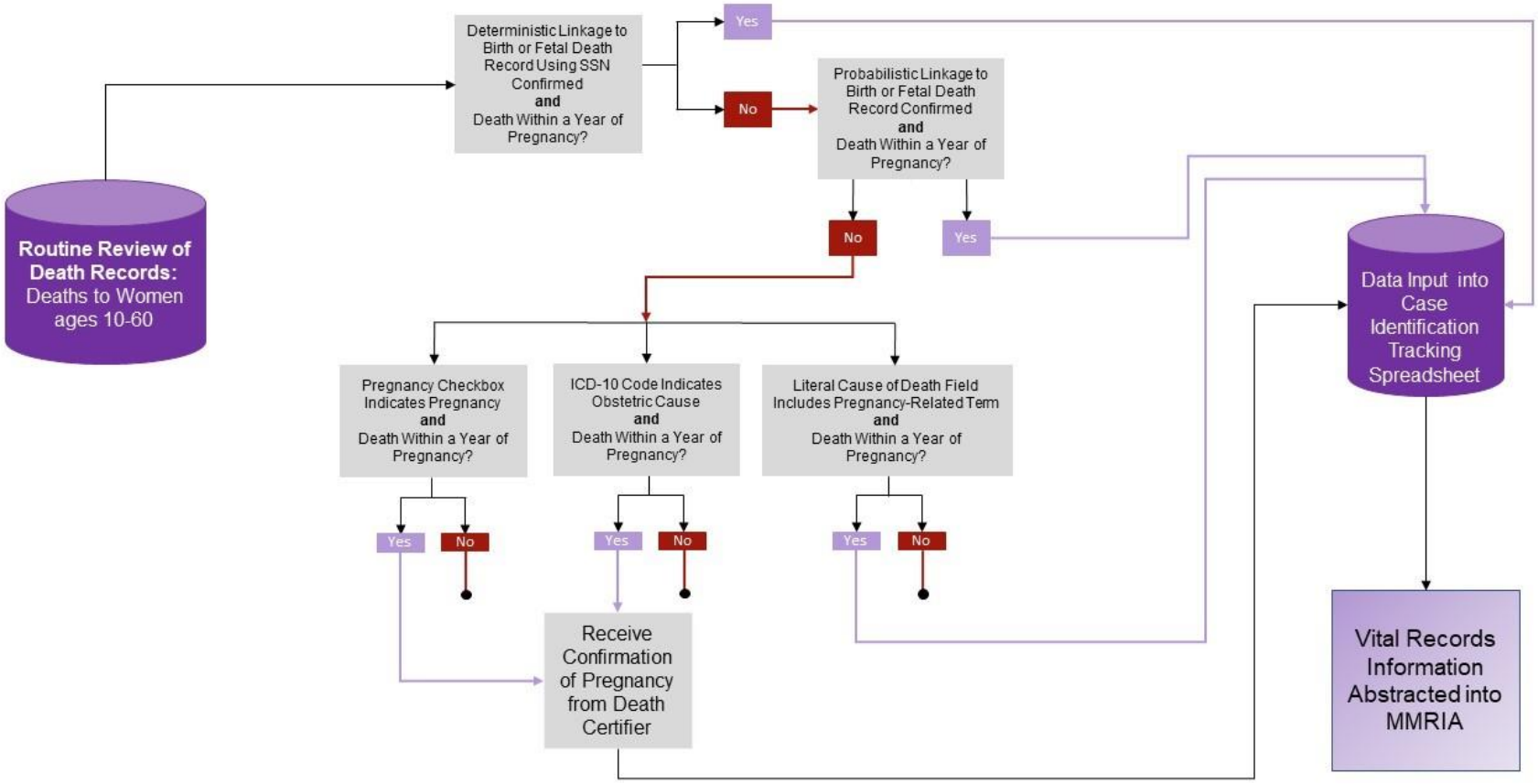
Core Disciplines

- Anesthesiology
- Community Advocates
- Community Birth Workers
- Family Medicine
- Forensic Pathology
- Maternal Fetal Medicine/ Perinatology
- Nurse Midwifery
- Obstetrics and Gynecology
- Patient/Family Advocate
- Patient Safety
- Perinatal Nursing
- Psychiatry
- Public Health
- Social Work

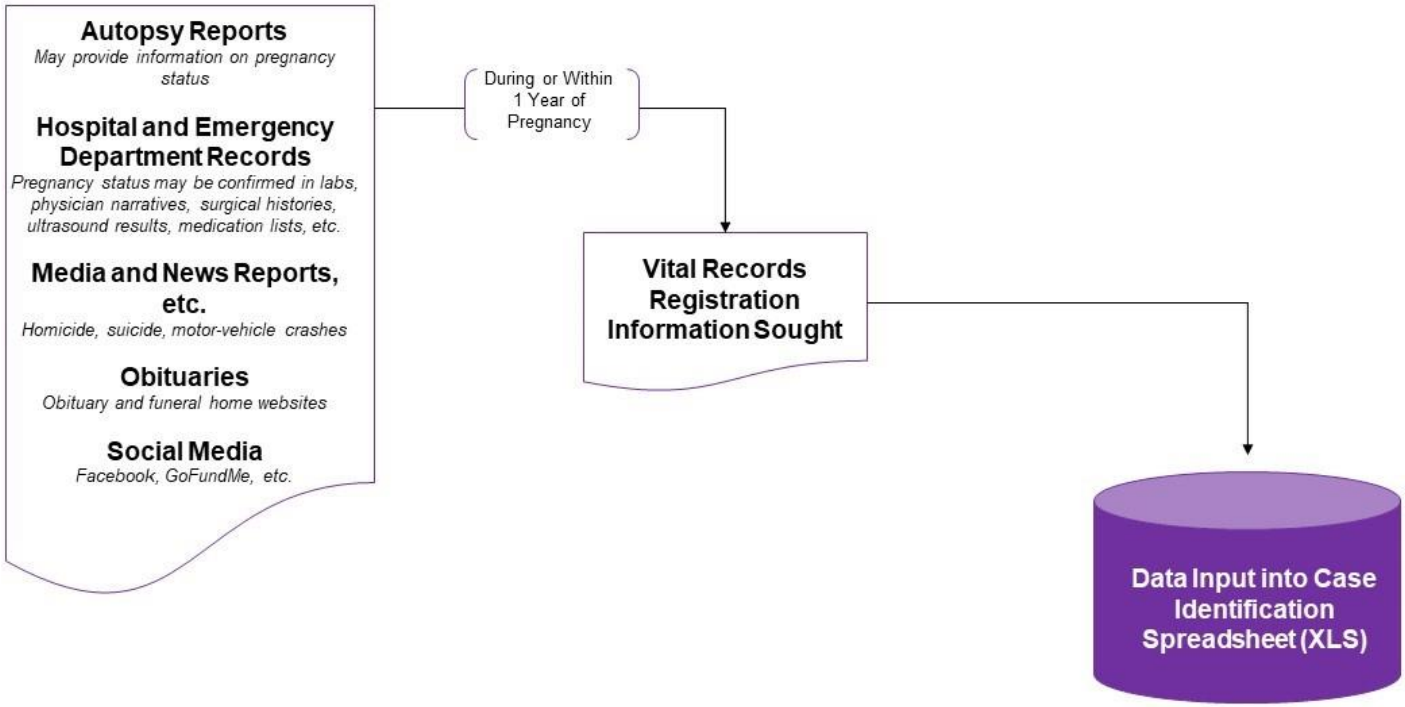
Specialty Disciplines

- Addiction Counseling
- Cardiology
- Clergy
- Community Leadership
- Critical Care Medicine
- Emergency Response
- Epidemiology
- Genetics
- Home Nursing
- Law Enforcement
- Mental Health Provider
- Nutrition
- Pharmacy/Pharmacology
- Public Health Nursing
- Quality/Risk Management

APPENDIX E: SAMPLE CASE IDENTIFICATION AND DATA FLOW



Alternate Reporting



APPENDIX F: CONSIDERATIONS FOR HIRING ABSTRACTORS

Special consideration should be placed on the selection of Abstractors for a Maternal Mortality Review Committee (MMRC). The expertise and skill of the individual Abstractor is closely tied to the quality of information that is presented to the committee and ultimately to the accuracy of identified issues and recommendations for improvement. The Abstractor represents the MMRC while in the field and holds a great deal of responsibility to ensure the protection and confidentiality of the information gathered. Therefore, it is of utmost importance for all Abstractors to demonstrate professionalism and have a full understanding of the authority and/or legislative parameters under which they operate. Abstractors should receive initial and ongoing training with regards to appropriate practice and confidentiality requirements.

The Abstractor typically receives assigned cases from a Coordinator as determined by MMRC project leadership and scope of review and then abstracts them within a specified time period. The Abstractor reviews and abstracts information from death certificates, birth certificates, fetal death certificates, medical and hospitalization records, autopsies, and social service records. Contacting health facilities and providers to arrange access to records for assigned cases may be the responsibility of the Abstractor alone or may be divided between an Abstractor and a Coordinator. The Abstractor is responsible for reviewing records, filling out appropriate abstraction forms, writing a case narrative, and providing additional information based on clinical documentation in the records. The Abstractor will typically attend review committee meetings and report to a Coordinator. The MMRC should come to a joint decision on what are the core competencies for Abstractors.

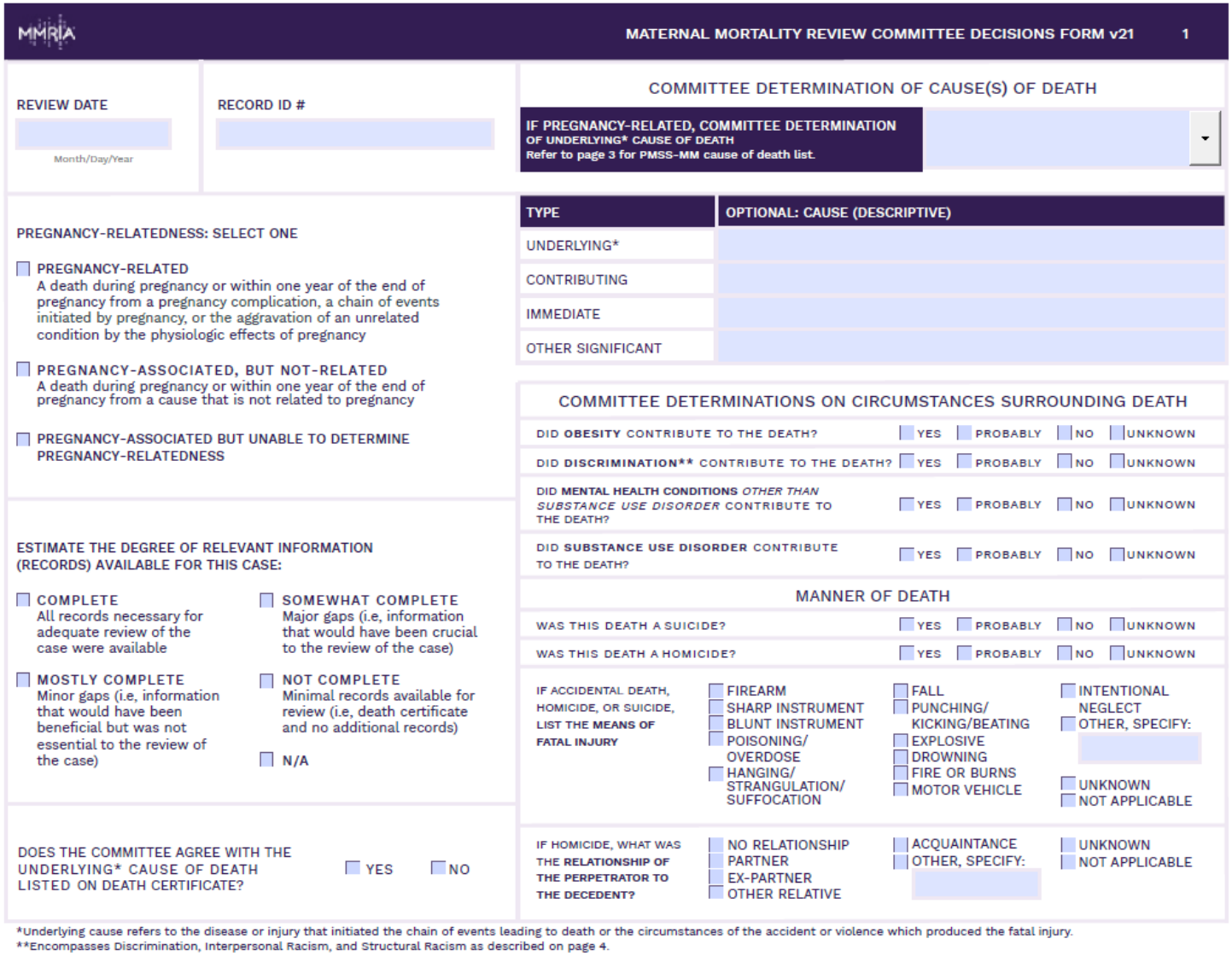
Ideal Abstractor Qualifications

- **Clinical experience** in obstetrics, antenatal, and postpartum care - minimum of five years
- Demonstrated understanding of normal/abnormal **processes of pregnancy, delivery, and postpartum** and the wide spectrum of factors that can influence maternal outcomes
- Demonstrated strong professional **communication skills** (phone, email, fax, verbal)
- **Computer skills**, including data entry experience and ability to navigate a variety of electronic medical record systems
- Experience in **medical record review** (facility-based root cause analysis (RCA), fetal-infant mortality review (FIMR), etc.)
- **Flexibility** and ability to accomplish tasks in short time frames
- Demonstrated **appreciation of the community**
- **Knowledge of HIPAA** and confidentiality laws
- **Ability to serve as an objective, unbiased storyteller**; not looking to assign blame
- Demonstrated understanding of **social determinants contributing** to maternal mortality

MMRCs have differing needs for Abstractor personnel and hours. Assistance in calculating the number of hours of abstraction required for your committee each year and associated costs can be found on the Review to Action website..

Abstracting is a taxing job and Abstractors need support from the committee and from other staff. Before hiring an Abstractor, decide who your Abstractor will report to and who they can go to for questions, concerns, and emotional support.

APPENDIX G: MMRIA COMMITTEE DECISIONS FORM



MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v21 1

REVIEW DATE

Month/Day/Year

RECORD ID #

COMMITTEE DETERMINATION OF CAUSE(S) OF DEATH

IF PREGNANCY-RELATED, COMMITTEE DETERMINATION OF UNDERLYING* CAUSE OF DEATH
Refer to page 3 for PMSS-MM cause of death list.

TYPE	OPTIONAL: CAUSE (DESCRIPTIVE)
UNDERLYING*	
CONTRIBUTING	
IMMEDIATE	
OTHER SIGNIFICANT	

PREGNANCY-RELATEDNESS: SELECT ONE

- PREGNANCY-RELATED
  A death during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy
- PREGNANCY-ASSOCIATED, BUT NOT-RELATED
  A death during pregnancy or within one year of the end of pregnancy from a cause that is not related to pregnancy
- PREGNANCY-ASSOCIATED BUT UNABLE TO DETERMINE PREGNANCY-RELATEDNESS

ESTIMATE THE DEGREE OF RELEVANT INFORMATION (RECORDS) AVAILABLE FOR THIS CASE:

- COMPLETE
  All records necessary for adequate review of the case were available
- MOSTLY COMPLETE
  Minor gaps (i.e, information that would have been beneficial but was not essential to the review of the case)
- SOMEWHAT COMPLETE
  Major gaps (i.e, information that would have been crucial to the review of the case)
- NOT COMPLETE
  Minimal records available for review (i.e, death certificate and no additional records)
- N/A

DOES THE COMMITTEE AGREE WITH THE UNDERLYING* CAUSE OF DEATH LISTED ON DEATH CERTIFICATE? YES NO

COMMITTEE DETERMINATIONS ON CIRCUMSTANCES SURROUNDING DEATH

DID **OBESITY** CONTRIBUTE TO THE DEATH?	YES	PROBABLY	NO	UNKNOWN
DID **DISCRIMINATION**** CONTRIBUTE TO THE DEATH?	YES	PROBABLY	NO	UNKNOWN
DID **MENTAL HEALTH CONDITIONS** *OTHER THAN SUBSTANCE USE DISORDER* CONTRIBUTE TO THE DEATH?	YES	PROBABLY	NO	UNKNOWN
DID **SUBSTANCE USE DISORDER** CONTRIBUTE TO THE DEATH?	YES	PROBABLY	NO	UNKNOWN

MANNER OF DEATH

WAS THIS DEATH A SUICIDE?	YES	PROBABLY	NO	UNKNOWN
WAS THIS DEATH A HOMICIDE?	YES	PROBABLY	NO	UNKNOWN

IF ACCIDENTAL DEATH, HOMICIDE, OR SUICIDE, LIST THE **MEANS OF FATAL INJURY**

- FIREARM
- SHARP INSTRUMENT
- BLUNT INSTRUMENT
- POISONING/ OVERDOSE
- HANGING/ STRANGULATION/ SUFFOCATION
- FALL
- PUNCHING/ KICKING/BEATING
- EXPLOSIVE
- DRAWNING
- FIRE OR BURNS
- MOTOR VEHICLE
- INTENTIONAL NEGLECT
- OTHER, SPECIFY:
- UNKNOWN
- NOT APPLICABLE

IF HOMICIDE, WHAT WAS THE **RELATIONSHIP OF THE PERPETRATOR TO THE DECEDENT?**

- NO RELATIONSHIP
- PARTNER
- EX-PARTNER
- OTHER RELATIVE
- ACQUAINTANCE
- OTHER, SPECIFY:
- UNKNOWN
- NOT APPLICABLE

*Underlying cause refers to the disease or injury that initiated the chain of events leading to death or the circumstances of the accident or violence which produced the fatal injury.
**Encompasses Discrimination, Interpersonal Racism, and Structural Racism as described on page 4.

MMRIA

MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v21 2

COMMITTEE DETERMINATION OF PREVENTABILITY

A death is considered preventable if the committee determines that there was at least some chance of the death being averted by one or more reasonable changes to patient, family, provider, facility, system and/or community factors.

WAS THIS DEATH PREVENTABLE? ☐ YES ☐ NO

CHANCE TO ALTER OUTCOME ☐ GOOD CHANCE ☐ SOME CHANCE ☐ NO CHANCE ☐ UNABLE TO DETERMINE

CONTRIBUTING FACTORS AND RECOMMENDATIONS FOR ACTION (Entries may continue to grid on page 5)

CONTRIBUTING FACTORS WORKSHEET

What were the factors that contributed to this death?
Multiple contributing factors may be present at each level.

RECOMMENDATIONS OF THE COMMITTEE

If there was at least some chance that the death could have been averted, what were the specific and feasible actions that, if implemented or altered, might have changed the course of events?

DESCRIPTION OF ISSUE (enter a description for EACH contributing factor listed)	CONTRIBUTING FACTORS (choose as many as needed below)	LEVEL	COMMITTEE RECOMMENDATIONS [Who?] should [do what?] [when?] Map recommendations to contributing factors.	LEVEL	PREVENTION TYPE (choose below)	EXPECTED IMPACT (choose below)

CONTRIBUTING FACTOR KEY (DESCRIPTIONS ON PAGE 4)

- Access/financial
- Adherence
- Assessment
- Chronic disease
- Clinical skill/ quality of care
- Communication
- Continuity of care/ care coordination
- Cultural/religious
- Delay
- Discrimination
- Environmental
- Equipment/ technology
- Interpersonal racism
- Knowledge
- Law Enforcement
- Legal
- Mental health conditions
- Outreach
- Policies/procedures
- Referral
- Social support/ isolation
- Structural racism
- Substance use disorder - alcohol, illicit/prescription drugs
- Tobacco use
- Trauma
- Unstable housing
- Violence
- Other

DEFINITION OF LEVELS

- **PATIENT/FAMILY:** An individual before, during or after a pregnancy, and their family, internal or external to the household, with influence on the individual
- **PROVIDER:** An individual with training and expertise who provides care, treatment, and/or advice
- **FACILITY:** A physical location where direct care is provided - ranges from small clinics and urgent care centers to hospitals with trauma centers
- **SYSTEM:** Interacting entities that support services before, during, or after a pregnancy - ranges from healthcare systems and payors to public services and programs
- **COMMUNITY:** A grouping based on a shared sense of place or identity - ranges from physical neighborhoods to a community based on common interests and shared circumstances

PREVENTION TYPE

- **PRIMARY:** Prevents the contributing factor before it ever occurs
- **SECONDARY:** Reduces the impact of the contributing factor once it has occurred (i.e, treatment)
- **TERTIARY:** Reduces the impact or progression of what has become an ongoing contributing factor (i.e, management of complications)

EXPECTED IMPACT

- **SMALL:** Education/counseling (community- and/or provider-based health promotion and education activities)
- **MEDIUM:** Clinical intervention and coordination of care across continuum of well-woman visits (protocols, prescriptions)
- **LARGE:** Long-lasting protective intervention (improve readiness, recognition and response to obstetric emergencies/LARC)
- **EXTRA LARGE:** Change in context (promote environments that support healthy living/ensure available and accessible services)
- **GIANT**: Address social determinants of health (poverty, inequality, etc.)

IF PREGNANCY-RELATED, COMMITTEE DETERMINATION OF UNDERLYING CAUSE OF DEATH* PMSS-MM

* PREGNANCY-RELATED DEATH: DEATH DURING PREGNANCY OR WITHIN ONE YEAR OF THE END OF PREGNANCY FROM A PREGNANCY COMPLICATION, A CHAIN OF EVENTS INITIATED BY PREGNANCY, OR THE AGGRAVATION OF AN UNRELATED CONDITION BY THE PHYSIOLOGIC EFFECTS OF PREGNANCY.

Hemorrhage (Excludes Aneurysms or CVA)
10.1 - Hemorrhage – Uterine Rupture
10.2 - Placental Abruption
10.3 - Placenta Previa
10.4 - Ruptured Ectopic Pregnancy
10.5 - Hemorrhage – Uterine Atony/Postpartum Hemorrhage
10.6 - Placenta Accreta/Increta/Percreta
10.7 - Hemorrhage due to Retained Placenta
10.10 - Hemorrhage – Laceration/Intra-Abdominal Bleeding
10.9 - Other Hemorrhage/NOS

Infection
20.1 - Postpartum Genital Tract (e.g., of the Uterus/Pelvis/Perineum/Necrotizing Fasciitis)
20.2 - Sepsis/Septic Shock
20.4 - Chorioamnionitis/Antepartum Infection
20.6 - Urinary Tract Infection
20.7 - Influenza
20.8 - COVID-19
20.10 - Pneumonia
20.11 - Other Non-Pelvic Infection (e.g., TB, Meningitis, HIV)
20.9 - Other Infection/NOS

Embolism - Thrombotic (Non-Cerebral)
30.1 - Embolism – Thrombotic (Non-Cerebral)
30.9 - Other Embolism (Excludes Amniotic Fluid Embolism)/NOS

Amniotic Fluid Embolism
31.1 - Embolism - Amniotic Fluid

Hypertensive Disorders of Pregnancy
40.1 - Preeclampsia
50.1 - Eclampsia
60.1 - Chronic Hypertension with Superimposed Preeclampsia

Anesthesia Complications
70.1 - Anesthesia Complications

Cardiomyopathy
80.1 - Postpartum/Peripartum Cardiomyopathy
80.2 - Hypertrophic Cardiomyopathy
80.9 - Other Cardiomyopathy/NOS

Hematologic
82.1 - Sickle Cell Anemia
82.9 - Other Hematologic Conditions including Thrombophilias/TTP/HUS/NOS

Collagen Vascular/Autoimmune Diseases
83.1 - Systemic Lupus Erythematosus (SLE)
83.9 - Other Collagen Vascular Diseases/NOS

Conditions Unique to Pregnancy
85.1 - Conditions Unique to Pregnancy (e.g, Gestational Diabetes, Hyperemesis, Liver Disease of Pregnancy)

Injury
88.1 - Intentional (Homicide)
88.2 - Unintentional
88.9 - Unknown Intent/NOS

Cancer
89.1 - Gestational Trophoblastic Disease (GTD)
89.3 - Malignant Melanoma
89.9 - Other Malignancy/NOS

Cardiovascular Conditions
90.1 - Coronary Artery Disease/Myocardial Infarction (MI)/Atherosclerotic Cardiovascular Disease
90.2 - Pulmonary Hypertension
90.3 - Valvular Heart Disease Congenital and Acquired
90.4 - Vascular Aneurysm/Dissection (Non-Cerebral)
90.5 - Hypertensive Cardiovascular Disease
90.6 - Marfan Syndrome
90.7 - Conduction Defects/Arrhythmias
90.8 - Vascular Malformations Outside Head and Coronary Arteries
90.9 - Other Cardiovascular Disease, including CHF, Cardiomegaly, Cardiac Hypertrophy, Cardiac Fibrosis, Non-Acute Myocarditis/NOS

Pulmonary Conditions (Excludes ARDS-Adult Respiratory Distress Syndrome)
91.1 - Chronic Lung Disease
91.2 - Cystic Fibrosis
91.3 - Asthma
91.9 - Other Pulmonary Disease/NOS

Neurologic/Neurovascular Conditions (Excluding CVA)
92.1 - Epilepsy/Seizure Disorder
92.9 - Other Neurologic Disease/NOS

Renal Disease
93.1 - Chronic Renal Failure/End-Stage Renal Disease (ESRD)
93.9 - Other Renal Disease/NOS

Cerebrovascular Accident not Secondary to Hypertensive Disorders of Pregnancy
95.1 - Cerebrovascular Accident (Hemorrhage/Thrombosis/Aneurysm/Malformation) not Secondary to Hypertensive Disorders of Pregnancy

Metabolic/Endocrine
96.2 - Diabetes Mellitus
96.9 - Other Metabolic/Endocrine Disorder/NOS

Gastrointestinal Disorders
97.1 - Crohn's Disease/Ulcerative Colitis
97.2 - Liver Disease/Failure/Transplant
97.9 - Other Gastrointestinal Disease/NOS

Mental Health Conditions
100.1 - Depressive Disorder
100.2 - Anxiety Disorder (including Post-Traumatic Stress Disorder)
100.3 - Bipolar Disorder
100.4 - Psychotic Disorder
100.5 - Substance Use Disorder
100.9 - Other Psychiatric Condition/NOS

Unknown COD
999.1 - Unknown COD

CONTRIBUTING FACTOR DESCRIPTIONS

LACK OF **ACCESS/FINANCIAL** RESOURCES
Systemic barriers, e.g, lack or loss of healthcare insurance or other financial duress, as opposed to noncompliance, impacted their ability to care for themself (e.g, did not seek services because unable to miss work or afford postpartum visits after insurance expired). Other barriers to accessing care: insurance non-eligibility, provider shortage in their geographical area, and lack of public transportation.

ADHERENCE TO MEDICAL RECOMMENDATIONS
The provider or patient did not follow protocol or failed to comply with standard procedures (i.e, non adherence to prescribed medications).

FAILURE TO SCREEN/INADEQUATE **ASSESSMENT** OF RISK
Factors placing the individual at risk for a poor clinical outcome recognized, and they were not transferred/transported to a provider able to give a higher level of care.

CHRONIC DISEASE
Occurrence of one or more significant pre-existing medical conditions (e.g, obesity, cardiovascular disease, or diabetes).

CLINICAL SKILL/QUALITY OF CARE (PROVIDER OR FACILITY PERSPECTIVE)
Personnel were not appropriately skilled for the situation or did not exercise clinical judgment consistent with standards of care (e.g, error in the preparation or administration of medication or unavailability of translation services).

POOR **COMMUNICATION**/LACK OF CASE COORDINATION OR MANAGEMENT/ LACK OF CONTINUITY OF CARE (SYSTEM PERSPECTIVE)
Care was fragmented (i.e, uncoordinated or not comprehensive) among or between healthcare facilities or units, (e.g, records not available between inpatient and outpatient or among units within the hospital, such as Emergency Department and Labor and Delivery).

LACK OF **CONTINUITY OF CARE** (PROVIDER OR FACILITY PERSPECTIVE)
Care providers did not have access to individual's complete records or did not communicate their status sufficiently. Lack of continuity can be between prenatal, labor and delivery, and postpartum providers.

CULTURAL/RELIGIOUS, OR LANGUAGE FACTORS The provider or patient demonstrated that any of these factors was either a barrier to care due to lack of understanding or led to refusal of therapy due to beliefs (or belief systems).

DELAY
The provider or patient was delayed in referring or accessing care, treatment, or follow-up care/action.

DISCRIMINATION
Treating someone less or more favorably based on the group, class or category they belong to resulting from biases, prejudices, and stereotyping. It can manifest as differences in care, clinical communication and shared decision-making. (Smedley et al, 2003 and Dr. Rachel Hardeman).

ENVIRONMENTAL FACTORS
Factors related to weather or social environment.

INADEQUATE OR UNAVAILABLE **EQUIPMENT/TECHNOLOGY**
Equipment was missing, unavailable, or not functional, (e.g, absence of blood tubing connector).

INTERPERSONAL RACISM
Discriminatory interactions between individuals based on differential assumptions about the abilities, motives, and intentions of others and resulting in differential actions toward others based on their race. It can be conscious as well as unconscious, and it includes acts of commission and acts of omission. It manifests as lack of respect, suspicion, devaluation, scapegoating, and dehumanization. (Jones, CP, 2000 and Dr. Cornelia Graves).

KNOWLEDGE - LACK OF KNOWLEDGE REGARDING IMPORTANCE OF EVENT OR OF TREATMENT OR FOLLOW-UP
The provider or patient did not receive adequate education or lacked knowledge or understanding regarding the significance of a health event (e.g, shortness of breath as a trigger to seek immediate care) or lacked understanding about the need for treatment/follow-up after evaluation for a health event (e.g, needed to keep appointment for psychiatric referral after an ED visit for exacerbation of depression).

INADEQUATE **LAW ENFORCEMENT** RESPONSE
Law enforcement response was not in a timely manner or was not appropriate or thorough in scope.

LEGAL
Legal considerations that impacted outcome.

MENTAL HEALTH CONDITIONS
The patient had a documented diagnosis of a psychiatric disorder. This includes postpartum depression. If a formal diagnosis is not available, refer to your review committee subject matter experts (e.g, psychiatrist, psychologist, licensed counselor) to determine whether the criteria for a diagnosis of substance use disorder or another mental health condition are met based on the available information.

INADEQUATE COMMUNITY **OUTREACH**/RESOURCES
Lack of coordination between healthcare system and other outside agencies/organizations in the geographic/cultural area that work with maternal health issues.

LACK OF STANDARDIZED **POLICIES/PROCEDURES**
The facility lacked basic policies or infrastructure germane to the individual's needs (e.g, response to high blood pressure, or a lack of or outdated policy or protocol).

LACK OF **REFERRAL** OR CONSULTATION
Specialists were not consulted or did not provide care; referrals to specialists were not made.

SOCIAL SUPPORT/ISOLATION - LACK OF FAMILY/ FRIEND OR SUPPORT SYSTEM
Social support from family, partner, or friends was lacking, inadequate, and/or dysfunctional.

STRUCTURAL RACISM
The systems of power based on historical injustices and contemporary social factors that systematically disadvantage people of color and advantage white people through inequities in housing, education, employment, earnings, benefits, credit, media, health care, criminal justice, etc. (Adapted from Bailey ZD. Lancet. 2017 and Dr. Carla Ortique).

SUBSTANCE USE DISORDER – ALCOHOL, ILLICIT/ PRESCRIPTION DRUGS
Substance use disorder is characterized by recurrent use of alcohol and/or drugs causing clinically and functionally significant impairment, such as health problems or disability. The committee may determine that substance use disorder contributed to the death when the disorder directly compromised their health status (e.g, acute methamphetamine intoxication exacerbated pregnancy- induced hypertension, or they were more vulnerable to infections or medical conditions).

TOBACCO USE
The patient's use of tobacco directly compromised the patient's health status (e.g, long-term smoking led to underlying chronic lung disease).

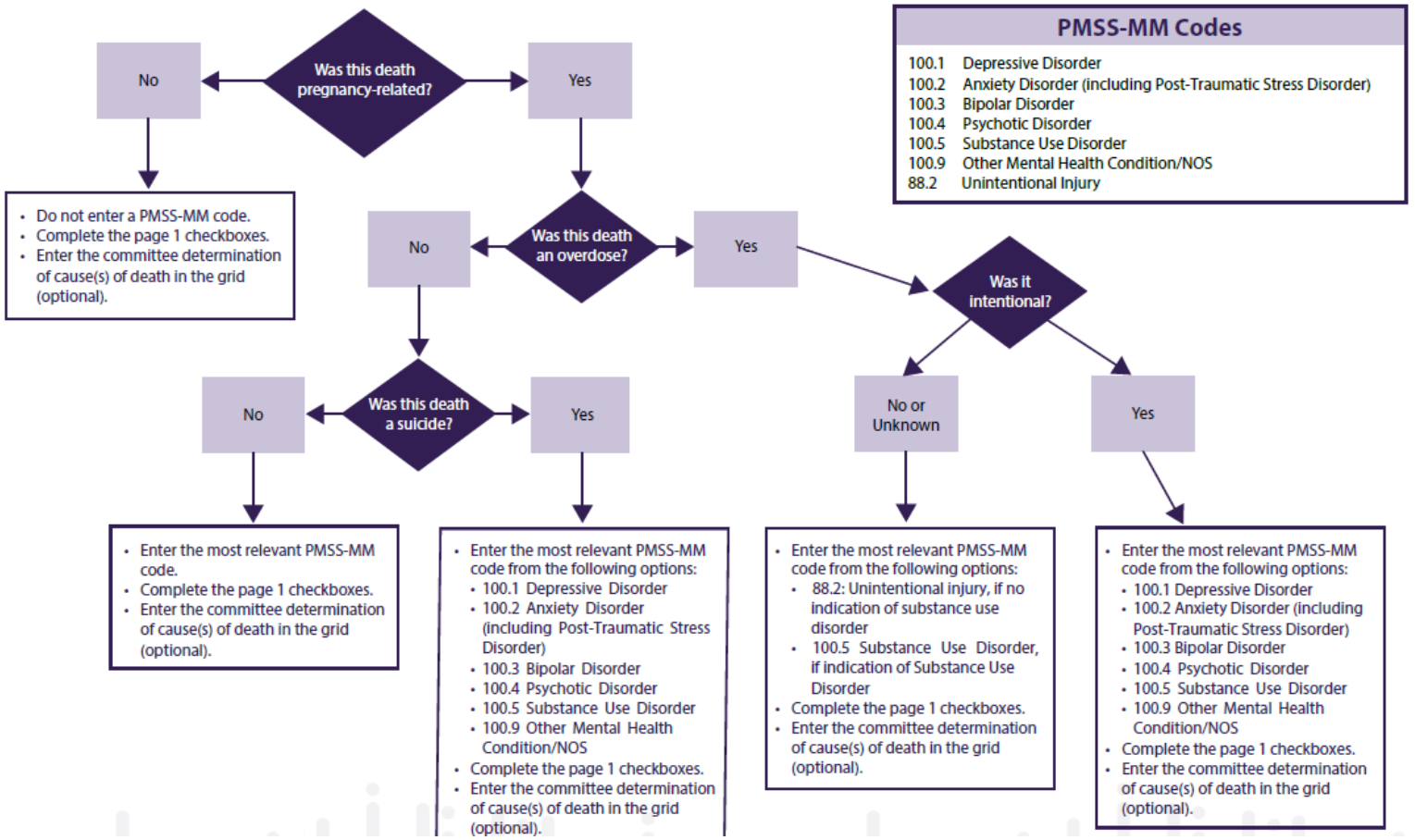
TRAUMA
The individual experienced trauma: i.e,, loss of child (death or loss of custody), rape, molestation, or one or more of the following: sexual exploitation during childhood plus persuasion, inducement, or coercion of a child to engage in sexually explicit conduct; or other physical or emotional abuse other than that related to sexual abuse during childhood.

UNSTABLE HOUSING
Individual lived "on the street," in a homeless shelter, or in transitional or temporary circumstances with family or friends.

VIOLENCE AND INTIMATE PARTNER VIOLENCE (IPV)
Physical or emotional abuse perpetrated by current or former intimate partner, family member, friend, acquaintance, or stranger.

OTHER
Contributing factor not otherwise mentioned. Please provide description.

APPENDIX H: PMSS-MM CODING UNDERLYING CAUSE OF DEATH FOR SUICIDES AND OVERDOSES



APPENDIX I: UTAH CRITERIA FOR PREGNANCY-RELATEDNESS OF SUICIDE/OVERDOSE DEATHS

- **Pregnancy complications**
  - Increased pain directly attributable to pregnancy or postpartum events (e.g., back pain, pelvic pain, UTI/kidney stones) leading to use of prescribed or illicit drug use that are implicated in subsequent death
  - Traumatic event in pregnancy or postpartum (stillbirth, preterm delivery, diagnosis of fetal anomaly, traumatic delivery experience, removal of children from custody) with a temporal relationship between the event leading to increased drug use and subsequent death
  - Pregnancy related complication (preeclampsia/eclampsia, placental abruption) likely exacerbated by drug use leading to subsequent death
- **Chain of events initiated by pregnancy**
  - Cessation or attempted taper of substance use treatment/pharmacotherapy (e.g., methadone or buprenorphine) for pregnancy-related concerns (e.g., fetal risk, fear of child protective service involvement) leading to maternal destabilization, drug use and subsequent death
  - Cessation of medications (e.g., chronic pain medications, psychiatric medications) due to pregnancy-related concerns (e.g., neonatal withdrawal, fetal growth, congenital anomalies) leading to maternal destabilization, drug use and subsequent death

- Inability to access inpatient or outpatient drug or mental health treatment due to pregnancy (e.g., providers uncomfortable with treating pregnant persons, facilities not available that accept pregnant persons)
- Post-partum depression, anxiety or psychosis resulting in maternal destabilization, drug use and subsequent death
- Recovery/stabilization achieved during pregnancy or postpartum with clear statement in records that pregnancy was motivating factor with subsequent relapse and overdose due to decreased tolerance and/or multiple drug use (prescribed opioids and illicit or misused opioids) and subsequent death

- **Aggravation of an unrelated condition by the physiological effects of pregnancy**
  - Worsening of underlying depression, anxiety or other psychiatric condition in pregnancy or postpartum period with documentation that mental illness led to drug use and subsequent death
  - Exacerbation, under-treatment, or delayed treatment of pre-existing condition (e.g., chronic pain) in pregnancy or postpartum leading to use of prescribed or illicit drugs resulting in death
  - Medical conditions secondary to drug use (stroke or cardiovascular arrest due to stimulant use) in setting of pregnancy or postpartum that may be attributable to pregnancy-related physiology and increased risk of complications leading to death

APPENDIX J: MMRC MEETING AGENDA TEMPLATE

<<MM/DD/YYYY>>, <<00:00 a.m. - 00:00 p.m.>>

<<Location>>, <<Street Address>>, <<City>>, <<State>> <<ZIP>>

AGENDA	ITEMS TO DISCUSS	PRESENTER	TIME
Open Meeting/Introductions		Co-Chair	9:00 – 9:10
Topic-Specific Updates	Present and Discuss	Staff Member, Other, i.e., Subject Matter Expert	9:10 – 9:15
Recommendations to Action Update	Share and Discuss	Group	9:15 – 9:30
Sign Confidentiality Statement	*All case information, including decedent names, provider names and facility names **must remain anonymous**.*	Coordinator or Lead Abstractor	9:30 – 9:45
Overview of Cases Identified for Review that are within Scope from Preliminary Review of Vital Records	Present	Coordinator or Lead Abstractor	9:45 – 10:00

Case Reviews *20-30 minutes per case*	• Review Case Narratives and Core Elements Summaries • Complete MMRIA Committee Decisions Form	Group	10:00 – 11:00
Break	Guided reflection/Self-care exercise		11:00 – 11:15
Lunch			11:15 – 12:30
Case Reviews *20-30 minutes per case*	• Review Case Narratives and Core Elements Summaries • Complete MMRIA Committee Decisions Form	Group	12:30 – 3:00
Synopsis and Conclusion	*Today we reviewed ___* ***(NUMBER)*** *deaths. We determined ___ were pregnancy-related, ___* ***(NUMBER)*** *were pregnancy-associated but not -related, ___* ***(NUMBER)*** *were* ***(UNABLE TO BE DETERMINED)****. We determined ___* ***(NUMBER)*** *to be preventable, and we made the*	Coordinator or Other Staff Member	3:00 – 3:15

	following recommendations: _____.		
Break	Guided reflection/Self-care exercise		3:15 – 3:30

- **Upcoming Meeting Dates:**
  - << MM/DD/YYYY>>
  - << MM/DD/YYYY>>
  - << MM/DD/YYYY>>
  - << MM/DD/YYYY>>

Upcoming Conferences <<Examples>>:

American College of Nurse Midwives Annual Meeting <<mm/dd/yyyy>>

ACOG District __ Annual Meeting <<mm/dd/yyyy>>

CDC MMRIA User Meeting <<mm/dd/yyyy>>

APPENDIX K: NOTES ON FACILITATIVE GROUP LEADERSHIP

Facilitative Group Leadership recognizes the value of bringing together individual strengths. This approach promotes ease of process and enables work to be done by accomplishing the following:

- **Focusing on making individual connections.** All human beings have an intrinsic need to be understood and to have a sense of value and worth; facilitators focus on enabling and empowering people to fulfill their potential.
- **Enabling a productive group process** in which members work together as a cohesive unit.[vii]
- **Assisting committee members to settle into the work at hand** through guided activities of silence and reflection at the beginning of the meeting.
- **Fostering a sense of opening and closure at the beginning and at the end of meetings** through a moment of silence and reflection on the plans for reducing or preventing future deaths.
- **Promoting committee awareness** of vicarious trauma and self-care tips.

Facilitative Leadership Roles[viii]

- **Leader/Manager:** Clarifies issues, stimulates discussion, manages committee process, focuses, and summarizes discussion, intervenes as needed.
- **Referee:** Encourages differing opinions, mediates conflicts, corrects erroneous information, and relieves tension.
- **Facilitator**: Encourages listening to ALL viewpoints, involves and protects ALL participants, accepts silences without criticism.

Facilitative Leadership Skills

- **An effective manager of committee dynamics:**
    - Maintains awareness of committee dynamics
    - Communicates effectively
    - Actively listens (paraphrases, summarizes, reflects)
    - Questions and seeks clarification in a non-critical manner
    - Encourages authenticity and maintains trust in the group

Managing Group Dynamics

The ability of committee members to interact and relate with each other is a key factor in determining how successful they will be in accomplishing their goals and reaching their vision. Therefore, the leadership of a committee must be familiar with the various aspects of group dynamics and continually nurture and foster a unified and cohesive working environment. A cohesive environment shouldn't prevent diversity of thought or opinion but aim help the committee avoid losing sight of its scope, mission, scope, and vision.

Group Roles: Benne & Sheats (1948) identified various roles that members of a group may fulfill. The roles either add value or reduce value.[viii]

There are three distinct categories of roles to be aware of. Some of these roles add value to the group process while others detract:

- **Group Task Roles (**Value **Adding)**
- **Personal/Social-Maintenance Roles (**Value **Adding)**
- **Dysfunctional/Individualistic Roles (**Value **Detracting)**

Some of the more common roles are listed below:

- **Group Task Roles: Work Roles** (Necessary to accomplish the task at hand)
    - **Initiator/Contributor**: Generates new thought and ideas
    - **Information Seeker**: Asks for clarification of ideas
    - **Information Giver**: Provides information to clarify and help analyze
    - **Opinion Seeker**: Asks for clarification of the values related to a suggested action
    - **Opinion Giver**: Shares personal beliefs, attitudes, or concerns
    - **Integrator**: Pulls group suggestions together in relational manner
    - **Orienter**: Helps to keep the group focused
    - **Procedural Technician**: Assists with meeting logistics
    - **Recorder**: Responsible for capturing ideas

- **Personal/Social Roles: Maintenance Roles** (Contribute to the positive relations and functioning of the group)
    - **Encourager**: Offers praise and empowers individuals to contribute
    - **Harmonizer**: Attempts to resolve conflict
    - **Compromiser**: One of the parties in a conflict who actively works to resolve conflict
    - **Gatekeeper/Expediter**: Helps to keep the communication channels open
    - **Observer/Commentator**: Accepts what others say and do (solely a listener, not an active contributor). Only seen as value-added if helping to act on group decisions.

- **Dysfunctional/Individualistic Roles:** Special care should be taken with members who take on these roles as they have great potential to interfere with positive group relations and impede progress.
    - **Aggressor**: Tries to gain status by consistently making condescending and/or hostile comments
    - **Blocker**: Consistently and negatively rejects others' ideas; unreasonable, stubborn, goes off on tangents, yet personally provides nothing constructive
    - **Recognition Seeker/Special Interest**: Attempts to draw attention to self through boasting and self-promotion; uses the group setting as a personal sounding board
    - **Disrupter**: Continually changes topics, brings up old, settled business
    - **Dominator**: Tries to take over authority and make decisions for the group
    - **Help-Seeker**: Disparages oneself to gain sympathy/empathy for personal challenges

Minimizing Bias

The ability of committee members to interact and relate with each other successfully requires a constant, iterative process of examining one's own personal beliefs, ideas, opinions, and values. This continuous examination is referred to in qualitative research as **reflexivity**, "finding strategies to question our own attitudes, thought processes, values, assumptions, prejudices and habitual actions, to strive to understand our complex roles in relations to others."[ix]

Reflexivity allows one to:

- Make our position, prejudices, and relationships to our context and setting clearer[x]
- Be less biased– ***what does the data say is the priority?***

An element of reflexivity, known as **positionality**, describes the "many facets that make up our social identities such as class, citizenship, ability, age, race, sexual orientation, cis/trans status, and gender."[xi] These factors, or positions within society, impact not only the way we see and interpret the world, but how the world around us sees and interprets us.[xii]

It may be helpful to ask yourself, the following questions:

- *What are the positions I hold in society?*
- *What positions do I hold within this committee group?*
- *How do these factors impact the way I lead the committee?*
- *How do these factors impact the way I participate in the committee?*

Norms for Group Communication

For those serving on an MMRC and tasked in a group leadership or facilitator role, implementing good communication techniques are critical to successful group discussion and outcomes. Being aware of your positionality, as well as the power and space you occupy within a group, will give your committee a way to structure speaking in a productive manner.

- **Forming and fostering anti-racism spaces for leadership**[xiii]
    - Despite differing roles, in this context and space, everyone is equal
    - Speak for yourself only. Avoid generalizations by phrasing statements as, “I often do…” instead of, “they often do…”
    - Speak one at a time to ensure all members are heard
    - Even if you disagree, listen respectfully to who is speaking and what is being shared

- **How much space do I occupy?**[xiii]
    - What percentage of the time am I actively listening with intent to others?
        - Do I find myself “zoning out” or asking members to repeat themselves?
        - Do I learn from the input and contributions of others?
        - Am I able to repeat the main message of previous speakers? Or am I too focused on what I will say next?
    - In comparison to others, how often am I speaking? Do I say every thought that comes to mind?
        - Yes? Consider allowing others the opportunity to speak more often
        - No? Consider sharing more so others can benefit from your insights and expertise

- **What position(s) do I occupy in this particular context?**[xiii]

  Because of my role within this committee… *(e.g., Chair, Abstractor, Member, IT, Epidemiologist, Other staff support)*

  - What power do I have over others in this setting?
    - How am I releasing this power in this context?
    - What does it look like to release this power? How am I able to convey with words and actions to others in the group that I am letting go of this power?
  - What disadvantages do I have in comparison to others in this setting?
    - How comfortable am I sharing my perspective and insights?
    - What does it look like to navigate through these disadvantages?
    - How can I ensure that my voice is being heard?

  Because of my actual (or perceived) ethnic or racial background…

  - What power do I have over others in this setting?
    - How am I releasing this power in this context?
    - What does it look like to release this power? How am I able to convey with words and actions to others in the group that I am letting go of this power?
  - What disadvantages do I have in comparison to others in this setting?
    - How comfortable am I sharing my perspective and insights?
    - What does it look like to navigate through these disadvantages?
    - How can I ensure that my voice is being heard?

Because of my occupation outside of this committee, and actual (or perceived) power that accompanies that occupation…*(e.g., lived experience vs. formal education or training; nurse vs. doctor)*

- What power do I have over others in this setting?
  - How am I releasing this power in this context?
  - What does it look like to release this power? How am I able to convey with words and actions to others in the group that I am letting go of this power?
- What disadvantages do I have in comparison to others in this setting?
  - How comfortable am I sharing my perspective and insights?
  - What does it look like to navigate through these disadvantages?
  - How can I ensure that my voice is being heard?

Additional Resources

- How to be a Great Facilitator
- The Community Toolbox from the Center for Community Health and Development at the University of Kansas

APPENDIX L: MMRC SUCCESS STORIES

Four types of success, ranging from process improvement to public health promotion

Indiana: Collaborative Learning and Identification Best Practices Through Peer Exchange

Indiana completed an Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) peer-to-peer site visit to Wisconsin in early March 2020 to meet with a regional peer program to exchange learning and observe processes in action. One specific new strategy the Indiana Maternal Mortality Review Committee (MMRC) program identified as a result of discussion with Wisconsin during the visit was enhancing pregnancy-associated identification practices through a direct call to death certifiers in order to solicit confirmation of "pregnant at the time of death" status. Enhanced pregnancy-associated identification processes help all jurisdictions ensure untimely death is reviewed by a multidisciplinary, expert committee to generate recommendations for action.

New York, New York City: Collaboration for Comprehensive Case Identification

In New York, the New York State Department of Health (NYSDOH) identifies pregnancy associated deaths for the entire state but does not review deaths of New York City residents, whereas the New York City Department of Health and Mental Hygiene (NYCDOHMH) identifies and reviews pregnancy associated deaths of only New York City residents. Through their collaboration on the ERASE MM program, NYSDOH and NYCDOHMH have been able to combine their resources and case identification processes to ensure that all pregnancy associated deaths of New York State residents, including NYC residents, are accurately identified in a timely manner. For example, through NYSDOH's participation in the State and Territorial Exchange of Vital Events (STEVE), NYSDOH Bureau of Vital Records identified additional pregnancy associated deaths of NYC residents that were not originally identified by NYCDOHMH, thus enhancing case ascertainment for the New York City review.

Utah: Data to Action

Utah developed the geolocated Utah Maternal Mental Health Resource Network in which women and clinicians can search for providers that have been specifically trained in maternal mental health screening and treatment. The Utah Maternal Mental Health Resource Network was developed in response to the Utah MMRC recommendation "Educate providers on available resources and mental health specialists they can refer to". Utah, alongside several community partners and legislators, gathered at the Utah State Capital Building on February 25th, 2020 to hold a press release regarding the launch of the website. In the first month of launching, the website received 1,300 visitors.

Wisconsin: Increased Engagement of Non-Clinical (i.e., Community) Perspectives within the Multidisciplinary, Expert Committee

Wisconsin has developed an action plan for the operationalization of non-clinical perspectives within their multidisciplinary MMRC, including the addition of a Community Advocate and Community Member. The Wisconsin MMRC team has identified gaps in current committee membership and purposefully recruited new members. In addition, the team has worded to set new, non-clinical members up for success through providing a tailored orientation and support system in order to ensure these new additional experts can be fully engaged in the committee reviews from the outset. Engagement of non-clinical perspectives into the process will better facilitate discussion and recommendations for action which address the entire spectrum of experiences a person has over their life course and identify both the clinical and non-clinical contributors to their untimely death.

Sustained Capacity to Coordinate Maternal Mortality Reviews in the Time of COVID-19

Despite the multiple and layered challenges related to the novel coronavirus outbreak, MMRCs have demonstrated agility and a sustained commitment to their core programmatic work in order to maintain program data quality and timeliness. As a result of the additional resources available under the ERASE Maternal Mortality funding, programs were able to immediately obtain access to virtual meeting platforms to support core functions and maintain long-planned committee meeting schedules. The ERASE Maternal Mortality program established national network of MMRCs permitted rapid dissemination of best practices for conducting reviews in a virtual environment

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