Enhancing Reviews and Surveillance to Eliminate Maternal Mortality

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Burden of maternal mortality
## Data from three important sources

<table>
<thead>
<tr>
<th>National Vital Statistics System</th>
<th>Pregnancy Mortality Surveillance System</th>
<th>Maternal Mortality Review Committees</th>
</tr>
</thead>
</table>
| Reports maternal deaths during pregnancy and up to 42 days after delivery | • Defines pregnancy-related death as during pregnancy or within 1 year after pregnancy  
• Uses death certificates, linked birth or fetal death certificates, and other information as available | • Review all deaths that occur during pregnancy or within 1 year, regardless of cause  
• Gather data from multiple clinical and non-clinical sources to determine:  
  • pregnancy-relatedness,  
  • underlying cause,  
  • preventability,  
  • contributing factors and  
  • recommendations for action. |
Too many mothers die

- 700 women die each year in U.S. from pregnancy-related causes
- Includes during pregnancy, labor/delivery, or up to a year after the end of pregnancy
- About 66% of these deaths may be preventable

- American Indian/Alaskan Native 2 times more likely to die than white women
- Black women 3 times more likely to die than white women

Timing of deaths in relation to pregnancy

31% During pregnancy
36% During delivery and up to 1 week afterward
33% 1 week to 1 year after
U.S. pregnancy-related mortality ratio, PMSS* 1999-2017

Pregnancy-related deaths per 100,000 live births

U.S. pregnancy-related mortality ratio by race/ethnicity, PMSS 2014-2017

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Pregnancy-related deaths per 100,000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic Black</td>
<td>41.7</td>
</tr>
<tr>
<td>Non-Hispanic American</td>
<td>28.3</td>
</tr>
<tr>
<td>or Alaska Native</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic Asian</td>
<td>13.8</td>
</tr>
<tr>
<td>or Pacific Islander</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>13.4</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>11.6</td>
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</tbody>
</table>

The PRMR for Black women with at least a college degree was 5x as high as white women with a similar education.

Jurisdiction-level Maternal Mortality Review Committees provide local maternal mortality data

<table>
<thead>
<tr>
<th>State and Local Maternal Mortality Review Committees (MMRCs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td><strong>Time Frame</strong></td>
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<tr>
<td><strong>Source of Classification</strong></td>
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<tr>
<td><strong>Terms</strong></td>
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<tr>
<td><strong>Measure</strong></td>
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<tr>
<td><strong>Purpose</strong></td>
</tr>
</tbody>
</table>

Leading causes vary by race-ethnicity: 14 MMRCs

Non-Hispanic Black

- Cardiomyopathy
- Cardiovascular and coronary conditions
- Hypertensive disorders of pregnancy
- Hemorrhage
- Embolism*
- Infection or sepsis

Percent of non-Hispanic Black Deaths

Non-Hispanic White

- Mental health conditions
- Hemorrhage
- Cardiovascular and coronary conditions
- Infection or sepsis
- Cardiomyopathy
- Embolism*

Percent of non-Hispanic White Deaths

Data Source: https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/mmr-data-brief.html

Notes: * Embolism – thrombotic pulmonary and other embolisms
Review to Action

Staff present each *selected* case to the MMRC using the case narrative.

MMRC discusses and makes key decisions about each death.

Enter key decisions into MMRIA.

Analyze data, identify key issues and recommendation themes.

Prioritize recommendations for action, and disseminate findings.
Data to action examples

• In 2020, 14 state MMRCs published a state report using their MMRC data

• IL, TN, and WA MMRC findings were used to support the extension of Medicaid coverage from 2-months to 1-year postpartum

• In response to a prioritized MMRC recommendation, the Utah Department of Health launched the Utah Maternal Mental Health Resource Network
Include and integrate members who represent community and who understand health policy drivers. It is important that all members be trained in and sensitized to societal, ecological, and historical contexts.

An MMRC cannot limit its focus to medical drivers alone—doing so will only get to about 50% of the reductions we want to achieve in maternal mortality.

Training and technical assistance on implementing the Community Vital Signs Web Portal and Recommendations Reference and understanding trauma are important tools.
Data informing action

Maternal health care standards, tools and resources

Prioritization of right place-right time interventions informed by MMRIA analyses

Understanding of leading causes of pregnancy-related deaths as determined by MMRCs

Community engagement
Investing in Maternal Mortality Review: Enhancing Reviews and Surveillance to Eliminate Maternal Mortality

- CDC ERASE MM Funded States
- Participating ERASE MM State

Jurisdictions Using MMRIA

- Standardized Data System
- Technical Assistance, Job Aids, Tools, and Training
- Funding (31 States in FY 21)
- Innovation
Building the Infrastructure for Equity: Perinatal Quality Collaboratives (PQCs) Close Gaps in Care

CDC Funds 13 PQCs and a National Network of PQCs

In Illinois, at baseline, Black patients with OUD were less likely to be on MAT. Across the initiative, improvements in MAT rates were seen for all patients with the greatest improvement for Black patients.
Help prevent pregnancy-related deaths.
Thank you!

For more information, visit www.cdc.gov/erasemm or contact: erasemm@cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.