Maternal Deaths in Michigan, 2016-2020 Data Update

Michigan Maternal Mortality Surveillance (MMMS) Program

For more information about the MMMS Program, please contact Melissa Limon-Flegler, Program Coordinator, at limonfleglerm1@michigan.gov or Heidi Neumayer, Program Epidemiologist, at neumayerh@michigan.gov.

MDHHS
Michigan Department of Health & Human Services

MMMS Process Improvements

Michigan Maternal Mortality Surveillance (MMMS) is a continuous quality improvement cycle that aims to comprehensively identify, review, and analyze deaths during pregnancy, childbirth, and the year postpartum; disseminate findings; and act on results to save lives of Michigan residents. The Maternal Mortality Review Committee (MMRC) is a group of subject matter experts in maternal health that convene regularly to review deaths and identify key learnings and opportunities to prevent future deaths.

As part of a quality improvement process, the MMMS program has taken steps to strengthen Michigan's capacity to examine and address maternal mortality. This includes transitioning from the Michigan Framework for Preventability Form to the Maternal Mortality Review Information Application (MMRIA) Committee Decisions Form, which is a tool used to facilitate committee discussion and standardize documentation of findings from the case review process (view here: MATERNAL MORTALITY REVIEW COMMITTEE DECISIONS FORM v21 (reviewtoaction.org)).

The MMMS program recognizes the importance of having diverse voices at the table who can provide greater perspective on system-level factors that contribute to maternal deaths. In 2021, Michigan expanded MMRC representation by region, race, gender, specialty, and profession. This restructure diversified membership to include a proportionate ratio of clinical and non-clinical committee members. Committee representation increased to include a community health worker, a community member doula, a certified nurse midwife, a nutrition specialist, a social worker, a tribal organization representative, a WIC specialist, and law enforcement personnel, thus leading to a more holistic approach to maternal death review.

The MMMS program has sought access to additional data sources that could inform circumstances leading to maternal mortality in Michigan. The case abstraction process was also brought in house, so the data is captured in a standardized format and to assure social contributors were included for all medical and non-medical cases. Additionally, the MMRC looked further into the social drivers of health utilizing tools to inform decision making, such as the Discrimination Assessment and Social Determinants of Health (DASH) tool[1] and the Centers for Disease Control and Prevention (CDC) Community Vital Signs Dashboard.

These process improvements have led to better elucidation of the factors connected to the maternal deaths that occur in Michigan and provide a better understanding of the social determinants and drivers of health that can negatively impact birthing persons during pregnancy and the first year postpartum. Ultimately, these process improvements result in more accurate determinations of pregnancy relatedness (leading to increases in the observed maternal mortality ratios) and the development of more powerful recommendations for preventing future maternal deaths.

Data Notes

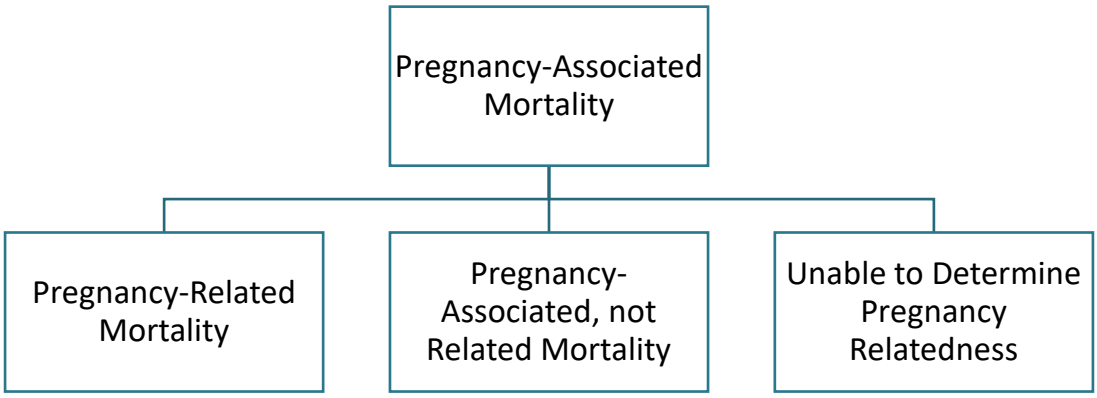
This report includes data from all deaths reviewed by the MMRC, including eight deaths of out-of-state residents that occurred in Michigan, apart from Figure 3 which is restricted to Michigan residents only.

Maternal race is classified through a two-step process. The first step classifies maternal deaths with American Indian/Alaska Native indicated within any race fields as American Indian/Alaska Native. The remainder of the maternal deaths are classified based on bridged race. This methodology can be seen beginning with the 2015-2019 MMMS Data Update.

[1] Discrimination Assessment and Social Determinants of Health (DASH) Tool. Texas Department of State Health Services (DSHS), Maternal Mortality and Morbidity Review Committee's Subcommittee on Maternal Health Disparities (2020).

Maternal Death Classification

Data in this report are classified into three main categories; pregnancy-associated, pregnancy-associated not related, and pregnancy-related. A section on maternal deaths that were unable to be determined is not included due to small sample size.



Pregnancy-associated mortality includes all maternal deaths that occur during pregnancy, at delivery or within one year of pregnancy and includes:

- **pregnancy-associated, not related** mortality includes deaths unrelated to the pregnancy
- **pregnancy-related** mortality includes deaths related to or aggravated by the pregnancy
- **unable to determine** mortality includes deaths in which pregnancy-relatedness is unable to be determined after Maternal Mortality Review Committee (MMRC) review.

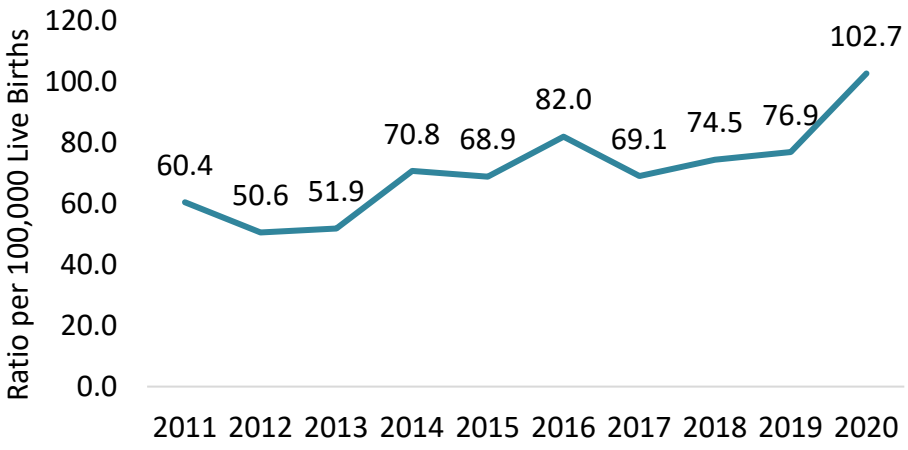
Key Findings

- A total of **467** maternal deaths were reported in Michigan during 2016-2020, of which **25** deaths were verified as not being pregnant.
- During 2016-2020, **106** deaths were identified as pregnancy-related. The most common causes of pregnancy-related death were infection, thrombotic/pulmonary embolism, and substance use disorder.
- During 2016-2020, **305** deaths were identified as pregnancy-associated, not related. The most common causes of pregnancy-associated, not related death were accidental poisoning/drug overdose and medical causes not directly related to or aggravated by the pregnancy.
- During 2016-2020, **31** deaths had pregnancy-relatedness that was unable to be determined. The most common causes of deaths in this category were medical and substance use disorder.
- Disparities exist by race, age, and education level for both pregnancy-related and pregnancy-associated, not related deaths.
- Among the reviewed pregnancy-related deaths, **74.5** percent were determined to be preventable; among the reviewed pregnancy-associated, not related deaths, **81.8** percent were deemed to be preventable.

Pregnancy-Associated Mortality

Pregnancy-associated mortality is the death of a person while pregnant or within one year of the end of a pregnancy. This includes pregnancy-related, pregnancy-associated, not related, and deaths where pregnancy-relatedness was unable to be determined.

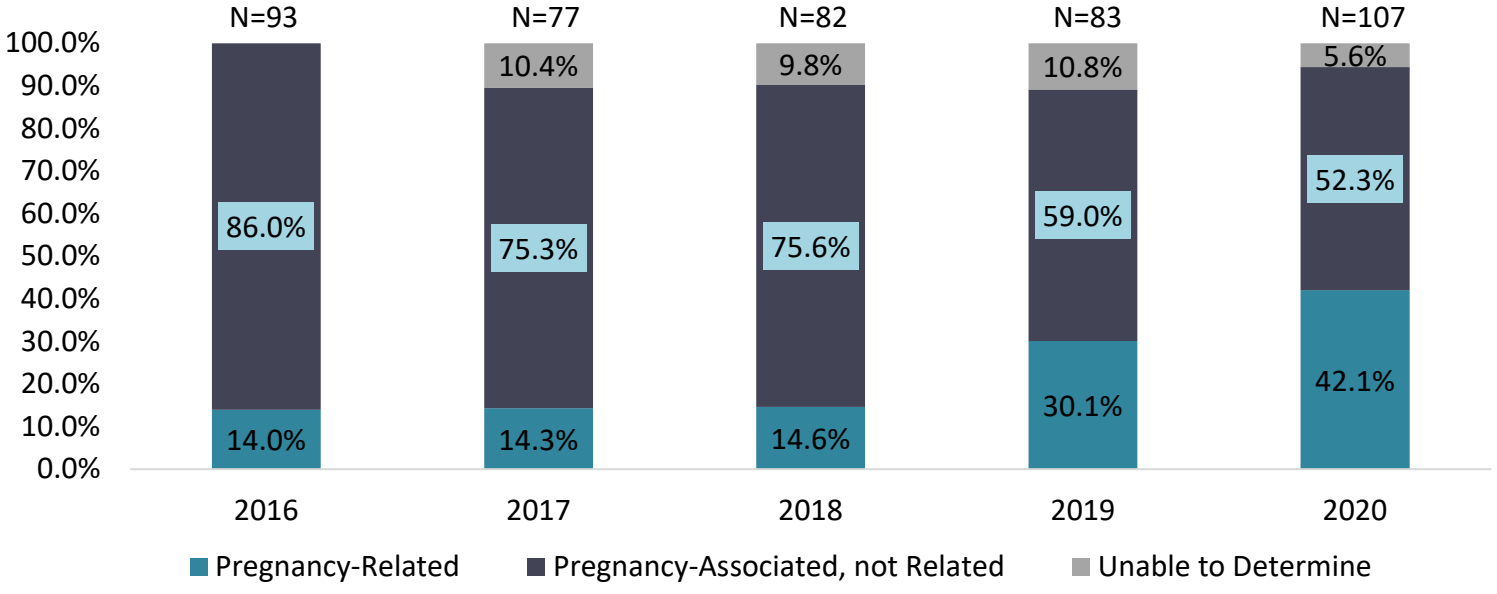
Figure 1. Pregnancy-Associated Mortality by Year, Michigan, 2011-2020



- Between 2011 and 2020, there were 786 cases of pregnancy-associated maternal mortality.
- The resulting pregnancy-associated mortality ratio was 70.5 per 100,000 live births.
- The overall trend between 2011 and 2020 was increasing with fluctuations between years.
- There was a 33.6 percent increase in maternal deaths from 2019 to 2020, driven by both medical and non-medical causes of death.

Committee Determination

Figure 2. Pregnancy-Associated Mortality, by Maternal Mortality Review Committee Determination, Michigan, 2016-2020*



* N depicts the annual number of pregnancy-associated cases. The MMRC conducts detailed review of maternal deaths to determine pregnancy-relatedness. An increase in the proportion of pregnancy-associated deaths being classified as pregnancy-related can be seen starting in 2019. This increase is primarily due to the review committee restructure that took place over the last couple years. Please refer to the process improvements on page 2 for further details.

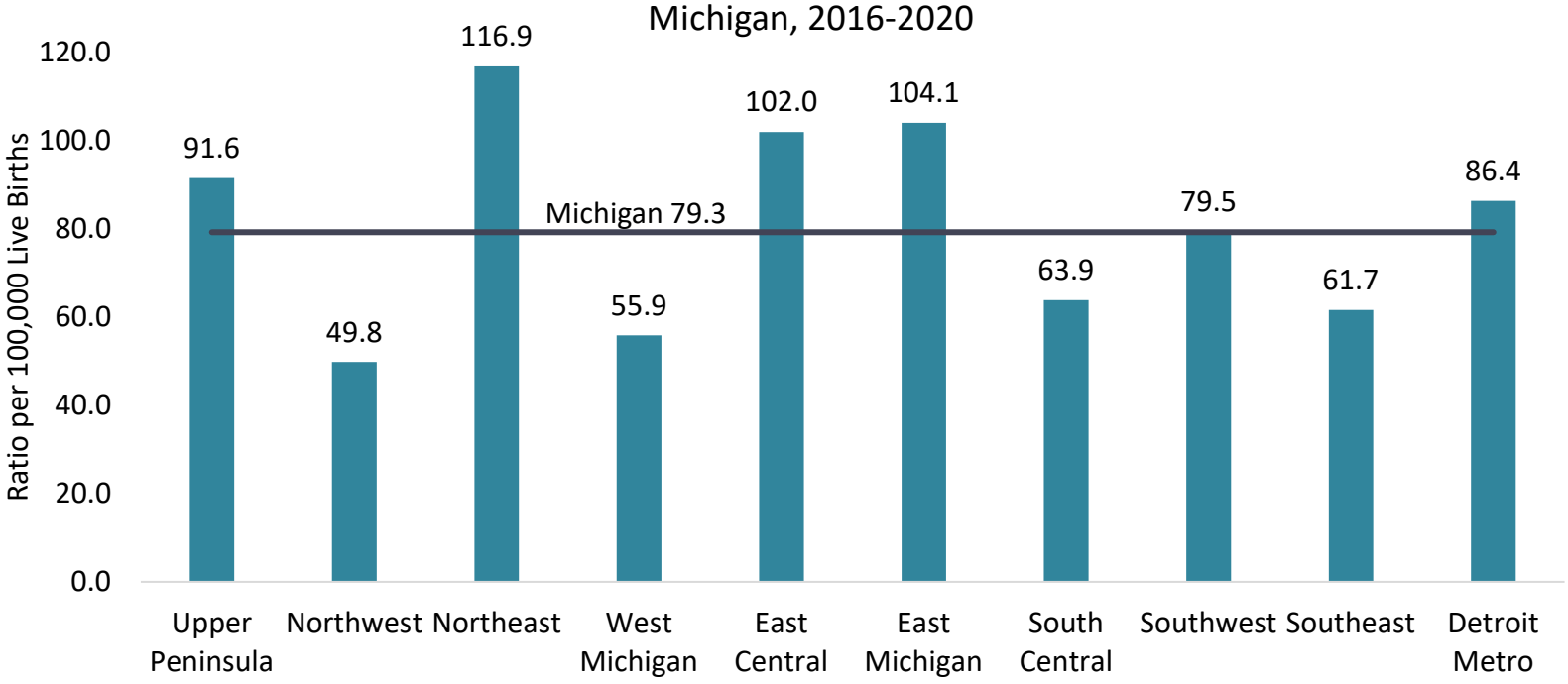
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2011-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2011-2020

Pregnancy-Associated Mortality

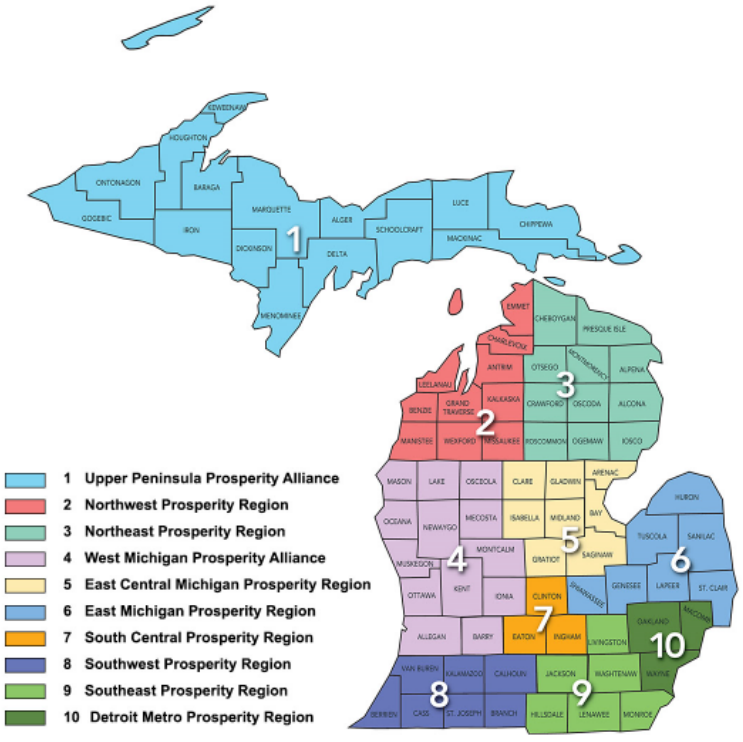
Prosperity Region

Between 2016 and 2020, the pregnancy-associated maternal mortality ratio for Michigan residents was 79.3 per 100,000 live births.

Figure 3. Pregnancy-Associated Mortality, by Prosperity Region, Michigan, 2016-2020



- The Upper Peninsula, Northeast, East Central, East Michigan and Detroit Metro prosperity regions experienced higher pregnancy-associated maternal mortality compared to Michigan overall.
- The Northwest, West Michigan, South Central, and Southeast prosperity regions experienced lower pregnancy-associated maternal mortality compared to Michigan overall.



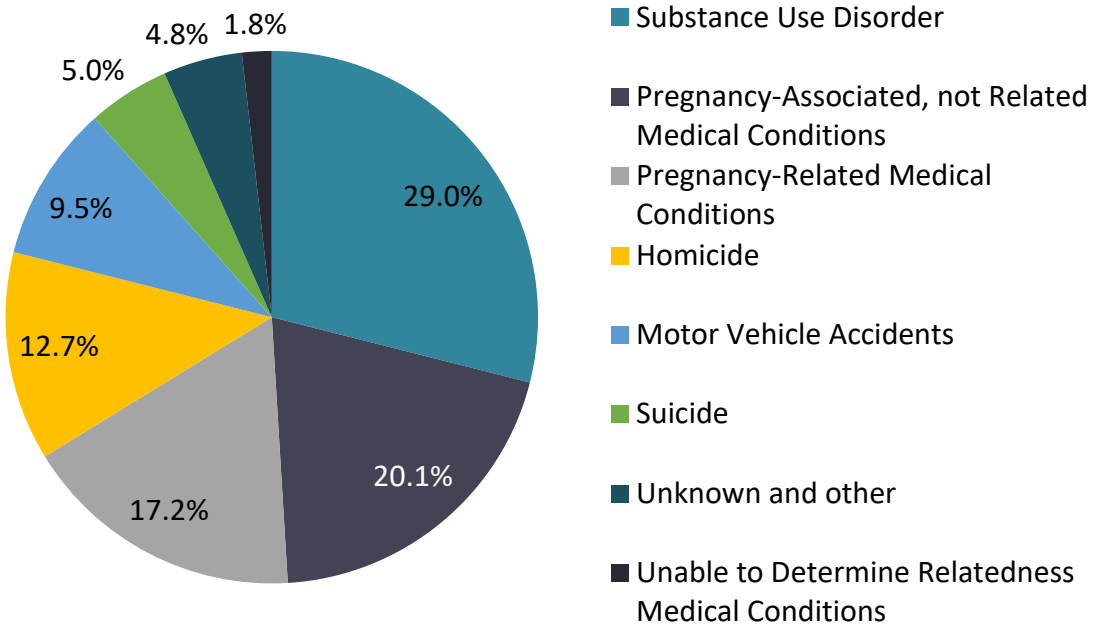
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2016-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2016-2020

Pregnancy-Associated Mortality

Causes of Death

- Substance use disorder, pregnancy-associated, not related medical conditions, and pregnancy-related medical conditions were the leading causes of maternal deaths in Michigan.
- Homicide, motor vehicle accidents, suicide, unknown, other, and unable to determine medical conditions were additional causes of maternal mortality.

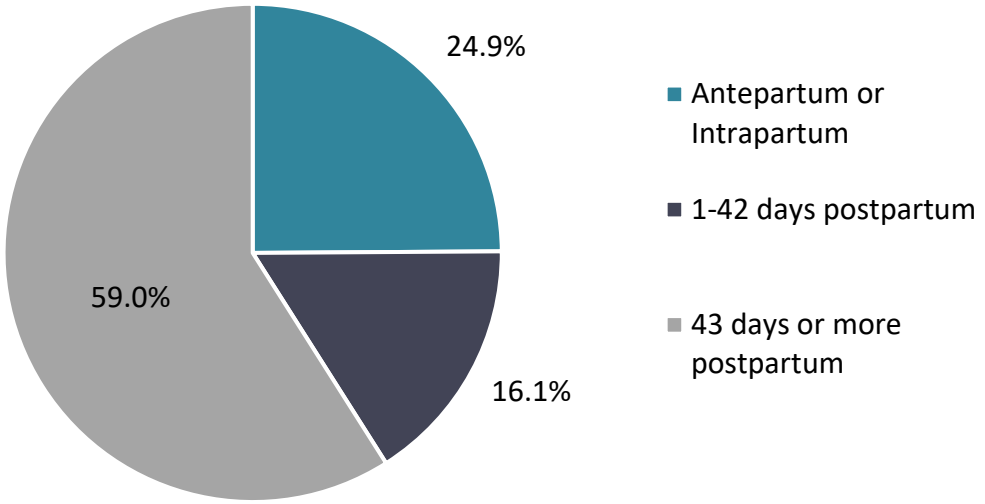
Figure 5. Causes of Pregnancy-Associated Mortality, Michigan, 2016-2020



Pregnancy Period

- Pregnancy-associated mortality can occur any time during the pregnancy or the one-year period following the pregnancy.
- Between 2016 and 2020, most pregnancy-associated deaths deaths occurred 43 days or more postpartum (59.0 percent).
- Antepartum refers to deaths that occur before childbirth and intrapartum refers to deaths that occur during labor or delivery.

Figure 6. Pregnancy-Associated Mortality by Pregnancy Period, Michigan, 2016-2020



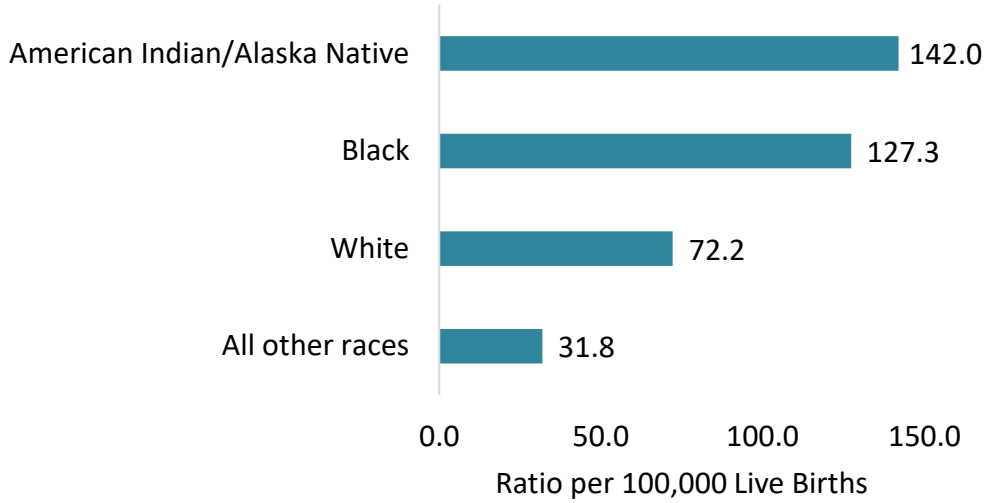
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2016-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2016-2020

Pregnancy-Associated Mortality

Disparity

- Disparities exist among pregnancy-associated maternal deaths in Michigan.
- American Indian/Alaska Native pregnancy-associated maternal mortality was 2.0 times higher compared to white pregnancy-associated maternal mortality.
- Black pregnancy-associated maternal mortality was 1.8 times higher compared to white pregnancy-associated maternal mortality.

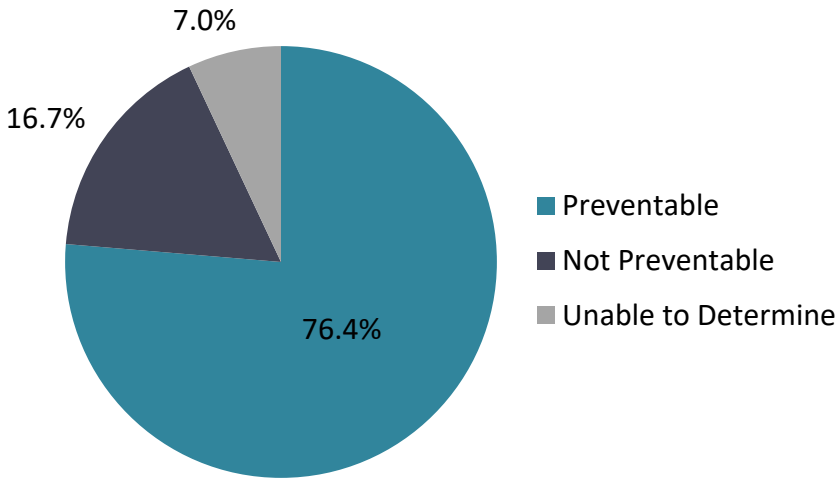
Figure 7. Pregnancy-Associated Mortality, by Race, Michigan, 2016-2020



Preventability

- A death is considered **preventable** if the committee determines 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.
- Between 2016-2020, the majority (76.4 percent) of pregnancy-associated cases were deemed preventable.
- Note: Not all cases are reviewed for preventability due to the expedited nature of some case reviews. Between 2016 and 2020, 258 pregnancy-associated cases were reviewed for preventability.

Figure 8. Preventability for Pregnancy-Associated Deaths, Michigan, 2016-2020



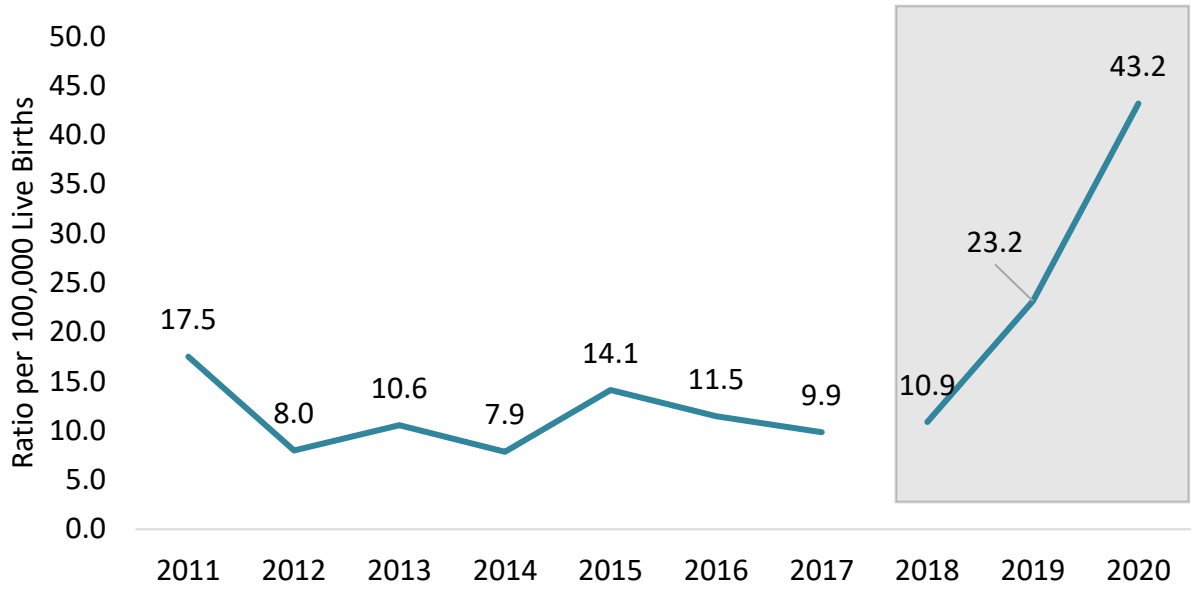
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2016-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2016-2020

Pregnancy-Related Mortality

Pregnancy-related mortality is the death of a person while pregnant or within one year of the end of a pregnancy from any cause **related to or aggravated by** the pregnancy or its management. This does not include accidental or incidental causes.

- From 2011-2020, **172** women died of pregnancy-related causes in Michigan, which is a ratio of **15.4** deaths per 100,000 live births.
- After experiencing a drop in 2012, the pregnancy-related maternal mortality ratio in Michigan experienced an overall increasing trend with fluctuations between years. Due to the relatively small numbers of cases in Michigan, small changes in the number of deaths can lead to large changes in the mortality ratio.
- In 2019, the pregnancy-related maternal mortality ratio increased **2.1** times as compared to the previous year. This is largely due to a change in MMRC structure and processes (better elucidation of the factors connected to these maternal deaths), as well as the subjective nature of case review (see page 2).
- In 2020, the pregnancy-related maternal mortality ratio increased **1.9** times as compared to 2019. This is due to an increase in the total number of maternal deaths, change in MMRC structure and processes (better elucidation of the factors connected to these maternal deaths), as well as the subjective nature of case review (see page 2).

Figure 9. Pregnancy-Related Mortality by Year, 2016-2020



Data note: The grey area above depicts the MMRC transition period. The new MMRC reviewed 51.2 percent of 2018 cases, 65.0 percent of 2019 cases, and 100.0 percent of 2020 cases. Case review processes continued to evolve to include upstream factors in pregnancy-related determinations with the transition to the new MMRC (2018-2020). See page 2 for further details on the recent improvements to the review process.

Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2011-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2011-2020

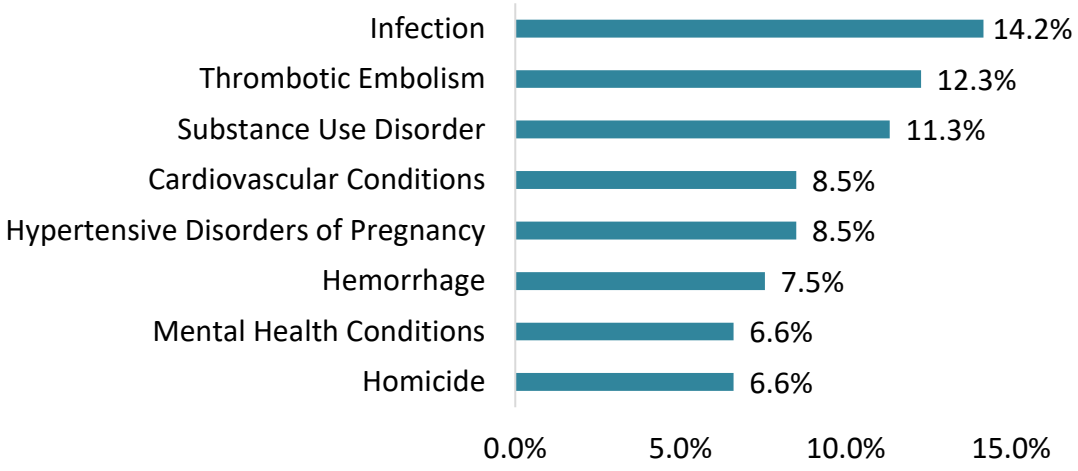
Pregnancy-Related Mortality

Causes of Pregnancy-Related Deaths

Primary underlying cause of maternal death is used to classify pregnancy-related maternal mortality groupings. Underlying cause is the disease or injury that initiated the chain of events leading to the death.

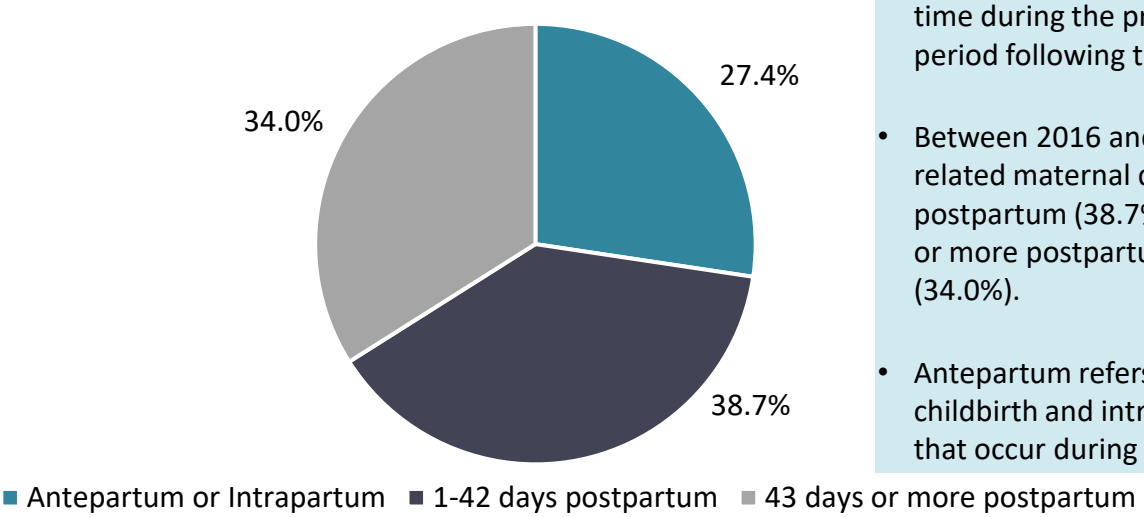
- Between 2016 and 2020, there were 106 pregnancy-related maternal deaths in Michigan. This is a ratio of 19.4 pregnancy-related deaths per 100,000 live births.
- Infection, thrombotic embolism, and substance use disorder were the leading causes of pregnancy-related deaths between 2016 and 2020.

Figure 10. Leading Causes of Pregnancy-Related Mortality, Michigan, 2016-2020



Pregnancy Period

Figure 11. Pregnancy-Related Maternal Mortality by Pregnancy Period, 2016-2020



- Pregnancy-related mortality can occur any time during the pregnancy or the one-year period following the pregnancy.
- Between 2016 and 2020, most pregnancy-related maternal deaths occurred 1-42 days postpartum (38.7%), followed by the 43 days or more postpartum pregnancy interval (34.0%).
- Antepartum refers to deaths that occur before childbirth and intrapartum refers to deaths that occur during labor or delivery.

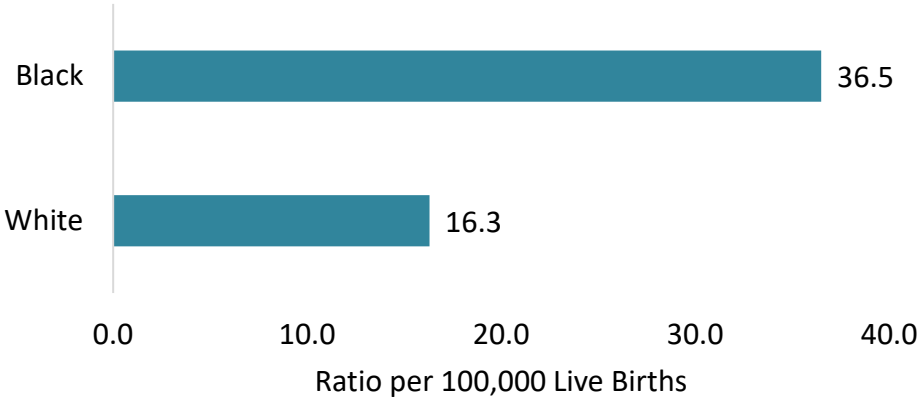
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2016-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files and Live Birth Files, 2016-2020

Pregnancy-Related Mortality

Disparity

- Nationwide, Black women die from pregnancy-related causes at a much higher ratio compared to white women.
- From 2016-2020, Black women were **2.2** times more likely to die from pregnancy-related causes in Michigan compared to white women (36.5 and 16.3 per 100,000 live births, respectively) (Figure 12).
- Races other than white and Black were suppressed due to sample sizes less than six.

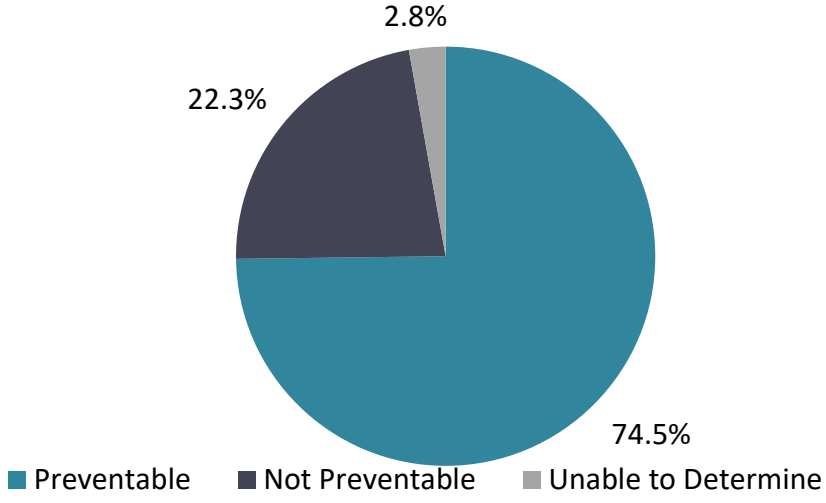
Figure 12. Pregnancy-Related Mortality by Race, 2016-2020



Preventability

- A death is considered **preventable** if the MMRC determines there was at least some chance of the death being averted by one or more reasonable changes at the provider, patient, facility, system, community, or policy level.
- Preventability is unknown if there is insufficient information available to determine if a death was preventable.
- Most pregnancy-related deaths were deemed preventable (74.5 percent).

Figure 13. Preventability for Pregnancy-Related Deaths, 2016-2020



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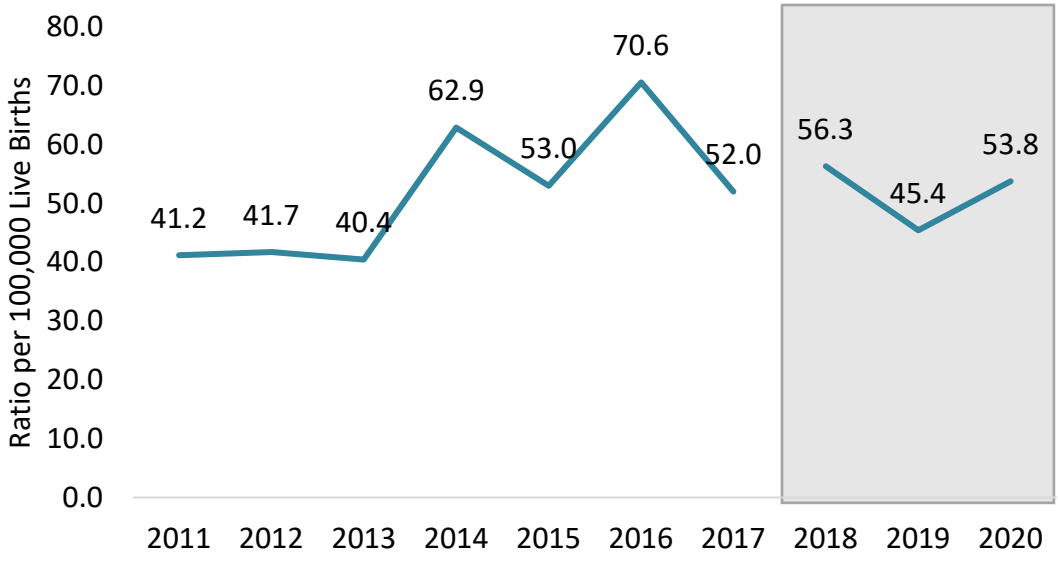
Pregnancy-Associated, not Related Mortality

Pregnancy-associated, not related mortality is the death of a person while pregnant or within one year of the end of a pregnancy due to a cause **unrelated to** pregnancy.

- From 2011-2020, **577** women died of pregnancy-associated, not related causes in Michigan, which is a ratio of **51.7** deaths per 100,000 live births.
- Between 2011 and 2013, the pregnancy-associated, not related maternal mortality ratio remained stable (approximately 41 maternal deaths per 100,000 live births). Over the next seven years, the pregnancy-associated, not related maternal mortality ratio fluctuated, with an overall increasing trend.
- The increase in pregnancy-associated, not related maternal mortality seen in 2014 onwards is mostly due to an increase in substance use disorder and medical causes of death.
- The decrease seen beginning in 2019 is primarily due to a change in MMRC structure that resulted in an increased proportion of maternal deaths being classified as pregnancy-related or unable to determine pregnancy-relatedness (see page 2).
- The increase seen between 2019 and 2020 is primarily due to an increase in substance use disorder and motor vehicle accident deaths.

Figure 14. Pregnancy-Associated, not Related Mortality by Year, 2011-2020



Data note: The grey area above depicts the MMRC transition period. The new MMRC reviewed 51.2 percent of 2018 cases, 65.0 percent of 2019 cases, and 100.0 percent of 2020 cases. Case review processes continued to evolve to include upstream factors in pregnancy-related determinations with the transition to the new MMRC (2018-2020). See page 2 for further details on the recent improvements to the review process.

Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2011-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2011-2020

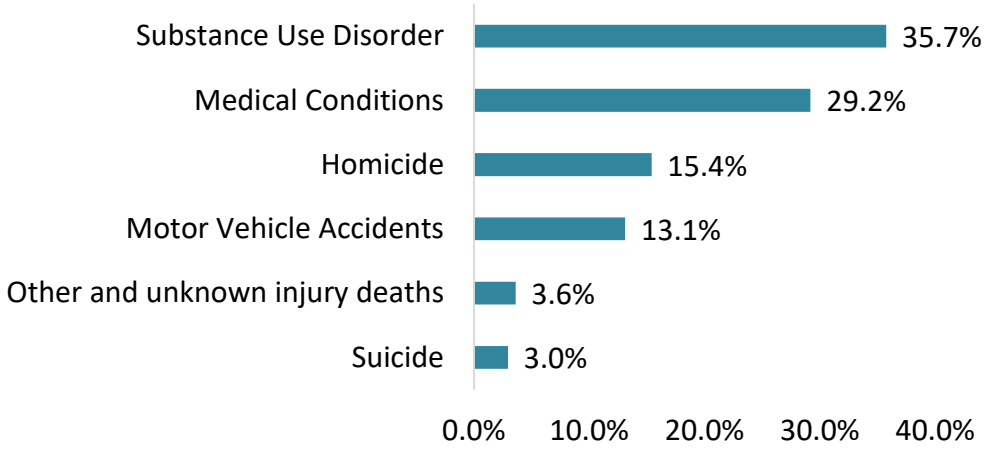
Pregnancy-Associated, not Related Mortality

Causes of Pregnancy-Associated, not Related Deaths

Underlying cause of maternal death is used to classify pregnancy-associated, not related maternal mortality groupings. Underlying cause is the disease or injury that initiated the chain of events leading to the death.

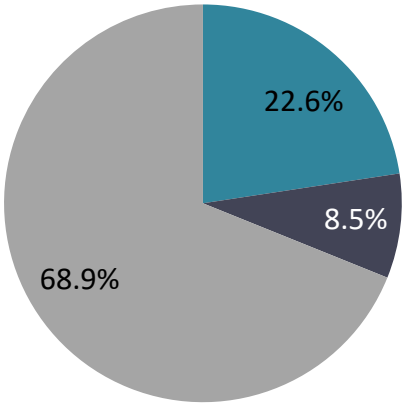
- Between 2016 and 2020, there were 305 pregnancy-associated, not related maternal deaths in Michigan. This is a ratio of 55.8 pregnancy-associated, not related deaths per 100,000 live births.
- Substance use disorder and medical conditions unrelated to or aggravated by the pregnancy were the leading causes of pregnancy-associated, not related medical deaths.

Figure 15. Leading Causes of Pregnancy-Associated, not Related Mortality, 2016-2020



Pregnancy Period

Figure 16. Pregnancy-Associated, not Related Maternal Mortality by Pregnancy Period, 2016-2020



- Pregnancy-associated, not related mortality can occur any time during the pregnancy or the one-year period following the pregnancy.
- Between 2016 and 2020, most pregnancy-associated, not related maternal deaths occurred 43 days or more postpartum (68.9%), followed by antepartum or intrapartum (22.6%).

Antepartum or Intrapartum 1-42 days postpartum 43 days or more postpartum

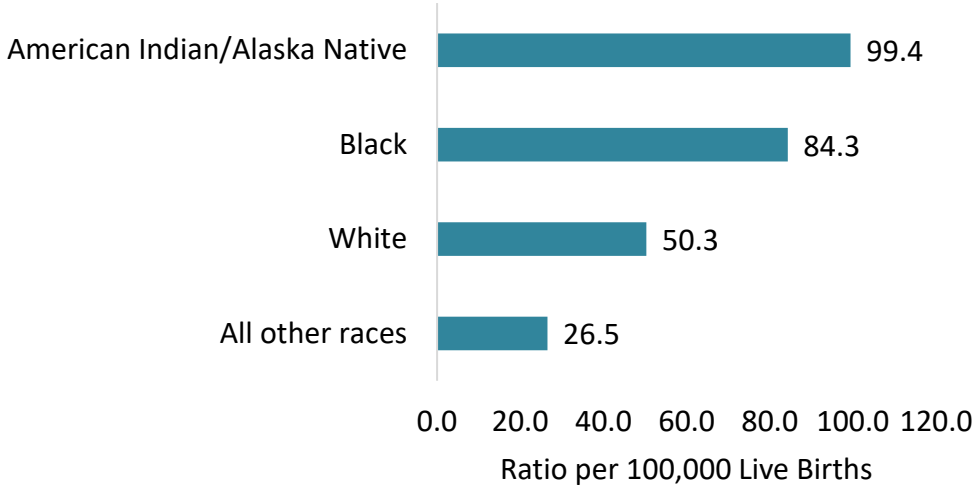
Date Sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2016-2020; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files and Live Birth Files, 2016-2020

Pregnancy-Associated, not Related Mortality

Disparity

- Disparities exist among pregnancy-associated, not related deaths in Michigan.
- From 2016-2020, American Indian/Alaska Native women were **2.0** times more likely to die from pregnancy-associated, not related causes compared to white women (99.4 and 50.3 per 100,000 live births, respectively) (Figure 17).
- From 2016-2020, Black women were **1.7** times more likely to die from pregnancy-associated, not related causes compared to white women (84.3 and 50.3 per 100,000 live births, respectively) (Figure 17).

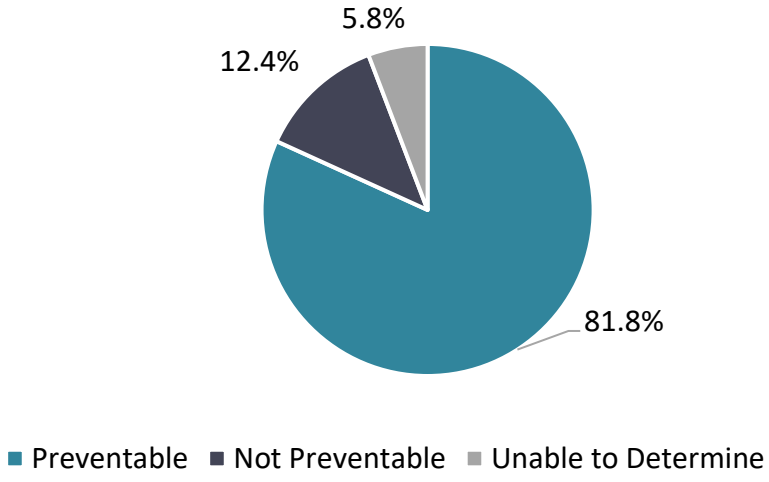
Figure 17. Pregnancy-Associated, not Related Mortality, by Race, 2016-2020



Preventability

- A death is considered **preventable** if the MMRC determines there was at least some chance of the death being averted by one or more reasonable changes at the provider, patient, facility, system, community, or policy level.
- Preventability is unknown if there is insufficient information available to determine if a death was preventable.
- Most pregnancy-associated, not related deaths were deemed preventable (81.8 percent).
- Not all pregnancy-associated, not related cases were reviewed for preventability due to expedited review of some cases. Between 2016 and 2020, 121 pregnancy-associated, not related cases were reviewed for preventability.

Figure 18. Preventability for Pregnancy-Associated, not Related Mortality, 2016-2020



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Moving Data to Action

The MMMS program works in partnership with a multidisciplinary **Maternal Mortality Review Committee (MMRC)** to examine cases of maternal death that occur during pregnancy, at delivery or within one year of the end of pregnancy. The purpose of the is to identify actions that can be taken to prevent maternal mortality with a focus on systems-level improvements. The MMRC generated 57 recommendations through their review of maternal deaths in Michigan.

In June 2022, the MMMS Program assembled the **Michigan Maternal Mortality Surveillance (MMMS) Recommendations Workgroup** to translate MMRC recommendations into quality improvement actions at the provider, facility, system, community and patient levels. The goals of the MMMS Recommendations Workgroup are to receive the findings from the MMRC and develop an action plan based on those recommendations. The MMMS Logic Model offers a visual representation of the activities and intended outcomes of Workgroup efforts.

Priority Recommendations

Through strategic planning, the MMMS Recommendations Workgroup identified three priority recommendations for implementation which include:

Support full **implementation of the Michigan Alliance for Innovation on Maternal Health (MI AIM) Patient Safety Bundles**: Obstetric Hemorrhage, Severe Hypertension and Maternal Sepsis, while working to adopt & implement the following:

- Safe Reduction of Primary of Primary C-Section (Obstetrics' Initiative)
- Cardiac Conditions in Obstetric Care
- Care for Pregnant and Postpartum People with Substance Use Disorder
- Perinatal Mental Health Conditions
- Postpartum Discharge Transition

Implement a **comprehensive state-wide education initiative to address pregnancy** and its intersection with mental health, sexual abuse, intimate partner violence (IPV), trauma, substance use, and chronic health conditions, as well as its increased occurrence in populations of birthing persons who are most vulnerable and marginalized.

Offer birthing persons **wrap-around services** to help align systems of care and transform every interaction into a potential opportunity for change.

A full list of Maternal Mortality Review Committee (MMRC) recommendations can be found on our website at Michigan.gov/MMMS. Determinations are guided by the U.S. Center for Disease Control and Prevention, Maternal Mortality Review Information Application's (MMRIA) Committee Decisions Form.

State Level Efforts to Reduce Maternal Mortality

Michigan's diverse and expansive maternal and infant health partners and stakeholders work on an array of initiatives to improve health outcomes. Below are selected state-level initiatives to reduce maternal mortality and morbidity. The below list does not include all ongoing community, facility and system level efforts across the state.

Monitoring Maternal Outcomes

- **Michigan Maternal Mortality Surveillance Program:** The Michigan Department of Health and Human Services (MDHHS) conducts surveillance of maternal deaths to determine factors responsible for maternal mortality in Michigan. The purpose of maternal mortality review is to better understand the underlying factors associated with maternal deaths and identify both medical and non-medical interventions to improve systems of care, social services, and community support. For more information, visit. Michigan.gov/MMMS
- **Michigan Pregnancy Risk Assessment Monitoring System (PRAMS):** Michigan PRAMS is a project that gathers high quality, population-based data about maternal attitudes and experiences before, during, and after pregnancy. The data collected by PRAMS is intended to help improve the health of mothers and their babies throughout the State of Michigan. For more information, visit: Pregnancy Risk Assessment Monitoring (michigan.gov)

Supporting Clinical and Systems Change

- **Healthy Moms Healthy Babies Initiative:** The Governor's plan to ensure that Michiganders are given the care they need to have a healthy pregnancy, to combat bias against women of color amongst medical professionals, and to expand support for interventions that are proven to increase health outcomes for women and their children. For more information, visit: Healthy Moms, Healthy Babies - State of Michigan
- **Advancing Healthy Births – An Equity Plan for Michigan Families & Communities:** This statewide plan strives towards the strategic vision of Zero preventable deaths and Zero health disparities. Michigan's plan focuses on sustainable actions and multifaceted approaches to improve outcomes for birthing people and their infants. For more information, visit: Advancing Healthy Births (michigan.gov)
- **Michigan Alliance for Innovation on Maternal Health (MI AIM):** MI AIM is a maternal health quality improvement initiative, focused on decreasing maternal morbidity, preventable mortality and health disparity through the implementation of patient safety bundles in collaboration with Michigan birthing hospitals. For more information, visit: www.miaim.us
- **Michigan Perinatal Quality Collaborative (MI PQC):** The Michigan PQC improves perinatal outcomes and birth equity through collaboration with diverse partners. MI PQC is divided into nine Regional Perinatal Quality Collaboratives (RPQCs), each engaging families, communities, and stakeholders in data-informed quality improvement efforts. For more information, visit: Michigan Perinatal Quality Collaborative (MI PQC)
- **Michigan Hear Her:** The Hear Her Michigan Campaign aims to prevent maternal mortality by empowering women and their support networks to know the urgent maternal warning signs and speak up when they have concerns. The campaign is also dedicated to encouraging everyone, including providers, caregivers, friends, and family to listen and act. For more information, visit: Michigan.gov/HearHer.

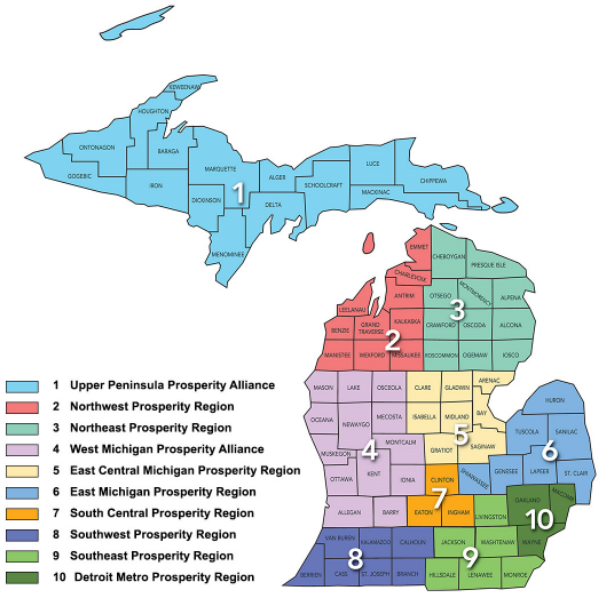
Successes

In 2022, the MMMS program was awarded funding under the Centers for Disease Control and Prevention (CDC) Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) Program. This funding helped to support implementation of recommendations developed through the MMRC process and prioritized by the MMMS Recommendations Workgroup.

Action on MMRC Priority Recommendations

With support from the CDC's ERASE MM funds, the MMMS Program offered a mini award opportunity to Michigan Perinatal Quality Collaboratives that were working on new or existing initiatives aligned to the MMRC priority recommendations. Four Regional Perinatal Quality Collaboratives were funded including:

- **Region 1: To support the Alliance for Innovation on Maternal Health's Patient Safety Bundle: Care for Pregnant and Postpartum People with Substance Use Disorder.** Michigan's Upper Peninsula Health Care Solutions collaborated with birthing hospitals in Region 1 to pilot the AIM patient safety bundle to increase clinical and non-clinical staff education on optimal care for pregnant and postpartum people experiencing substance use disorder; develop policies and protocols that address health care team member biases and stigma related to substance use; and increase education on referral resources/pathways.
- **Region 2&3: To better understand a wraparound approach in Tribal Communities.** Through open communication and increased trust, Regions 2&3 strengthened partnerships with indigenous organizations and tribal communities to better understand birth inequities faced by indigenous pregnant persons. Knowledge gained and information received will be used to educate providers on traditional birthing practices and culturally responsive care.
- **Region 7: Used storytelling as a tool for addressing disparities in maternal mortality and the importance of continuity/coordination of care.** Stories from birthing persons will be used to convey health information, raise awareness and inspire change and action.
- **Region 9: Implementing a comprehensive statewide education initiative to address pregnancy and its intersection with trauma.** In partnership with Growing Forward Together, Region 9 is developing a statewide trauma-informed training and resources for perinatal providers across Michigan.



Focus on Health Equity

In December 2019, the MMRCs convened a Health Equity Work Group Meeting to review MMRC recommendations, specifically related to racial disparities, and examine opportunities for integrating a health equity framework into our maternal mortality reviews. MMRC members generated the following recommendations:

MMRC Health Equity Work Group Recommendations (abbreviated)
The MMRCs will continue to integrate a **health equity framework** to address **systemic inequities** and the **social determinants of health** that result in disparate outcomes for all Michigan mothers.
MMRCs, in conjunction with MDHHS, will increase access to education for providers and systems on **delivering culturally competent care and reducing stigma, bias and barriers when implementing services** and recommend that all providers are exposed to **implicit bias training** that leads to use of best practices for dignity and respectful care.
The MMMS program will continue to seek out and/or expand access to internal and external data sources so MMRCs can better understand the **modifiable social and environmental determinants of health and health inequities**.
The MMMS program will make an annual health equity and **implicit bias training** mandatory for all (MMRC) members.
MDHHS will provide practical tools at the community level to **reduce health inequities**.
The MMRCs will evaluate all maternal death cases to determine if **social, economic, environmental and/or structural disparities** affected health outcomes.

Perspectives

Every death tells a story…

Every woman who dies during or after pregnancy has a story to tell, a story that has lessons for communities, policy makers, physicians and other health care leaders.

Our vision is to create a safe maternal climate in Michigan by listening to pregnant and postpartum people. We honor the women whose experiences we have attempted to understand and learn from, as well as their partners, children and communities. We hope that the lessons learned from their deaths will create new pathways to prevention, health and equity.

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