MI AIM

MICHIGAN ALLIANCE FOR INNOVATION ON MATERNAL HEALTH

Michigan Alliance for Innovation on Maternal Health (MI AIM)

ANNUAL SUMMARY

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MI AIM INTRODUCTION

The Alliance for Innovation on Maternal Health (AIM) is a federally funded maternal quality improvement program. Michigan was one of the first of seven states to bring this program to their state's hospitals and birthing mothers in 2015. The Michigan Alliance for Innovation on Maternal Health (MI AIM) is dedicated to improving the culture of maternal safety by decreasing preventable severe maternal morbidity and mortality through the implementation of AIM patient safety bundles.

MI AIM builds upon years of hard work of the Michigan hospitals, Michigan Health and Hospital Association (MHA), Michigan Department of Health and Human Services (MDHHS), Wayne State University and many more.

MI AIM is moving forward with plans to ensure zero preventable deaths and zero health disparities by building more partnerships, furthering Safety Bundle implementation and supporting initiatives to improve the health of moms in Michigan. MI AIM is working to promote and support education, outreach and advocacy for moms, babies and families for healthier outcomes and stronger families.

Michigan AIM is saving women's lives through evidence-based practice and data-driven quality improvement initiatives.

MI AIM STRUCTURE

MI AIM works through statewide committees and teams at individual hospitals and health systems to align national, state and hospital-level quality improvement efforts to improve overall maternal health outcomes.

MI AIM is committed to improving maternal outcomes in Michigan.

MI AIM leadership, committees, administrative support and hospital members work on highly specialized and diverse projects across Michigan to improve maternal and infant health.

Because of this, it is impossible to capture the broad and expansive work of individual efforts. It is important to acknowledge this and commend partners for their expansive and invaluable work to improve health for moms, babies and families in Michigan.

The MI AIM efforts explicitly align with Michigan's Advancing Healthy Births plan, Michigan Maternal Mortality Surveillance (MMMS) Committee Recommendations and Michigan's Perinatal Quality Collaborative (MI PQC).

For more information on MI AIM please contact: MDHHS-DMIH@Michigan.gov
Visit the MI AIM website at http://www.miaim.us/
Find out more about AIM patient safety bundles at https://saferbirth.org/patient-safety-bundles/

Learn more about Michigan's Advancing Healthy Births plan

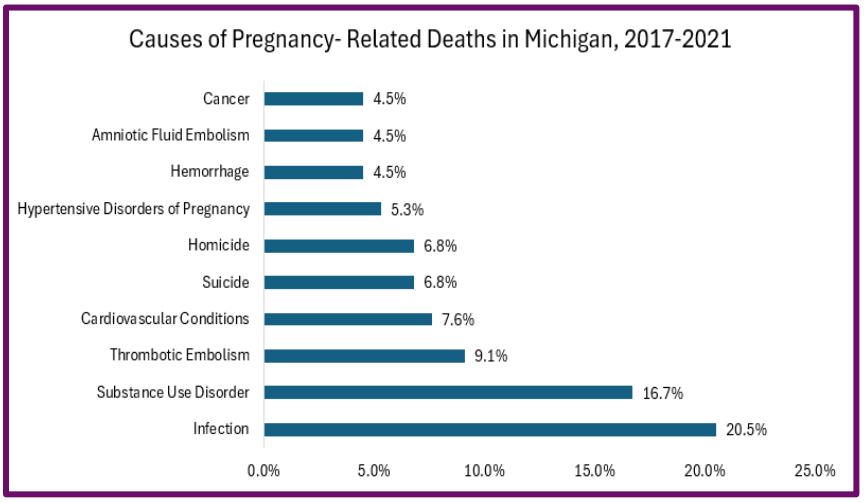
MI AIM CURRENT & RELATED PROGRAMS

In 2022, AIM revised the Obstetric Hemorrhage and Severe Hypertension in Pregnancy patient safety bundles to include respectful care considerations, revise existing elements, include new elements related to evidence-informed practices and update data collection plans. The bundles provide actionable steps that can be adapted to a variety of facilities and resource levels to improve quality of care and outcomes for patients experiencing an obstetric hemorrhage or severe hypertensive disorders of pregnancy.

The Sepsis in Obstetric Care patient safety bundle refers to the World Health Organization's definition for maternal sepsis as "a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion, or the postpartum period (up to 42 days)". This bundle provides actionable steps that can be adapted to a variety of facilities and resource levels to improve quality of care and outcomes for patients experiencing sepsis.

To address the most frequent causes of preventable maternal mortality and morbidity, Michigan has implemented these three patient safety bundles with support of MI AIM.

1. Obstetric Hemorrhage
2. Severe Hypertension in Pregnancy
3. Sepsis in Obstetric Care



Eighty Percent of all Maternal Deaths in Michigan are Preventable.

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MI AIM is Saving Lives in Michigan.

Data sources: Michigan Department of Health and Human Services, Michigan Maternal Mortality Surveillance Program, 2017-2021; Michigan Department of Health and Human Services, Division for Vital Records and Health Statistics, Resident Death Files, 2017-2021.

MATERNAL LEVELS OF CARE VERIFICATION PROGRAM

The Maternal Levels of Care Verification (MLC) Program helps ensure hospitals have the right staff, equipment and systems to provide risk-appropriate care for every pregnant and postpartum patient. In collaboration with the American College of Obstetricians and Gynecologists (ACOG), the Joint Commission launched this program to reduce maternal morbidity and mortality by promoting standardized, regionalized care.

Through a voluntary, on-site evaluation, The Joint Commission assesses hospitals and critical access hospitals to determine their designated level of maternal care.

Level I: Basic care

Level II: Specialty care

Level III: Subspecialty care

Level IV: Regional perinatal health care centers

Maternal Levels of Care reinforce the importance of MI AIM participation, ensuring that facilities adopt evidence-based practices to improve maternal outcomes. By integrating MLC verification with AIM patient safety bundle implementation, hospitals are better equipped to deliver safe, high-quality care tailored to each patient's risk level.

MATERNAL LEVELS OF CARE VERIFICATION PROGRAM

Michigan has demonstrated strong early adoption of Maternal Levels of Care Verification (MLC), with **53 of 75 birthing hospitals** committing to participate in the MLC program during its initial rollout in 2024. To encourage widespread participation, the Michigan Department of Health and Human Services (MDHHS) covered all associated fees, including those for site visits, and reduced barriers for facilities seeking verification. Hospitals that completed their Maternal Levels of Care Verification application and maintained full participation in MI AIM by July 30, 2024 received a quality-based payment in September 2024 as part of this initiative.

"Michigan has had more hospitals apply for verification than any other state, demonstrating the commitment to high-quality maternal health care."

Michigan Hospitals Pursue Maternal Levels of Care Verification | MDHHS

Michigan's 2024 Maternal Levels of Care Verification Applicants

Ascension Borgess Hospital

Bronson Battle Creek Hospital

Bronson Methodist Hospital

Corewell Health Beaumont Grosse Pointe Hospital

Corewell Health Beaumont Troy Hospital

Corewell Health Big Rapids Hospital

Corewell Health Dearborn Hospital

Corewell Health Farmington Hills Hospital

Corewell Health Gerber Hospital

Corewell Health Grand Rapids Hospital

Corewell Health Greenville Hospital

Corewell Health Lakeland Hospital – Niles

Corewell Health Lakeland Hospital - St. Joseph

Corewell Health Ludington Hospital

Corewell Health Pennock Hospital

Corewell Health Trenton Hospital

Corewell Health Wayne Hospital

Corewell Health William Beaumont University Hospital

Corewell Health Zeeland Hospital

Covenant Healthcare

DMC Harper/Hutzel Hospital

DMC Huron Valley-Sinai Hospital

DMC Sinai-Grace Hospital

Henry Ford Detroit Hospital

Henry Ford Genesys Hospital

Henry Ford Providence Novi Hospital

Henry Ford Providence Southfield Hospital

Henry Ford Rochester Hospital

Henry Ford St. John Hospital

Henry Ford West Bloomfield Hospital

Henry Ford Wyandotte Hospital

Hillsdale Hospital

Holland Hospital

Hurley Medical Center

Marshfield Medical Center - Dickinson

McLaren Bay Region Hospital

McLaren Central Michigan Hospital

McLaren Flint Hospital

McLaren Greater Lansing Hospital

Memorial Healthcare

Munson Healthcare Cadillac Hospital

ProMedica Charles & Virginia Hickman Hospital

ProMedica Monroe Regional Hospital

Three Rivers Health Hospital

Trinity Health Ann Arbor Hospital

Trinity Health Grand Rapids Hospital

Trinity Health Livonia Hospital

Trinity Health Muskegon Hospital

Trinity Health Oakland Hospital

University of Michigan Health - Michigan Medicine

University of Michigan Health - Sparrow Lansing

University of Michigan Health - West

UP Health System – Bell

Every Encounter is an Opportunity to Save a Life

Mariana's Story

Before I was discharged from the hospital, the doctors talked to me about warning signs to watch out for - like chills, severe headaches, vision changes - and told me to call my doctor immediately if I experienced any of them. But the truth is, I felt great. I had no symptoms and was just so happy to be going home with my newborn.

A few days later, I started having some trouble with breastfeeding. It was painful, and my baby wasn't latching well. Then I got a call from Healthy Future. I asked the nurse if she could come to my home and help, and she did, with so much care and support.

She helped me reposition the baby, and it made an immediate difference; my baby started nursing better and the pain went away. Before leaving, the nurse asked how I was feeling. I told her I felt amazing, that I was recovering well, getting more active and independent every day. She was happy to hear that, and then said she would check my blood pressure; something new they were doing for postpartum moms.

It read 183/98. She took it again just to be sure; and it was still very high.

She quickly called my doctor, who told her to send me to the ER right away. When I arrived, I was admitted and diagnosed with postpartum preeclampsia. I still felt fine, no symptoms at all, but the dangerously high blood pressure was already a major warning sign. The doctors told me that if I had waited even a little longer, I probably would've started feeling very sick and it could be more dangerous. Thankfully, I got there in time, and they began treatment immediately.

Today, I'm alive, healthy, and here to enjoy my daughter and my son and my family because Healthy Futures stepped in at the right time.

"That kind of care is priceless. And for me, it was lifesaving".

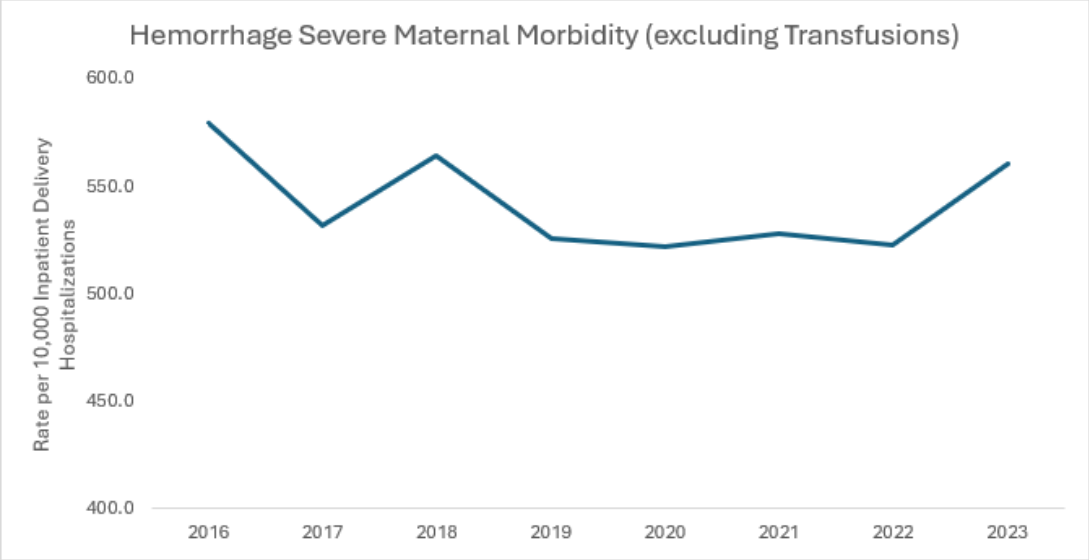
Mariana's Story

(Images provided by Mariana Numerick-Plumacher, Grand Traverse County, Healthy Futures).

OBSTETRIC HEMORRHAGE

In 2016, hemorrhage was among the leading causes of pregnancy related deaths in Michigan and the AIM Obstetric Hemorrhage patient safety bundle was first adopted. Between January 2018 and December 2024, the percentage of birthing hospitals in Michigan participating in this bundle increased from 15.9% to 82.7%. As part of the MI AIM multi-disciplinary collaborative, participating hospitals received and continue to receive technical assistance for data collection and interpretation, site visits, monthly operations meetings with the collaborative clinical and technical leads, and ongoing education.

The prepartum risk assessment rate has maintained steady at 94-96%, although Michigan has grown in the number of hospitals implementing the Obstetric Hemorrhage safety bundle. In 2018, 57 birthing hospitals in Michigan reported compliance of 96% with completing prepartum risk assessment. In 2023, 60 birthing hospitals in Michigan reported compliance of 94%. Although the percentage is showing a decline, more birthing hospitals in total are performing a prepartum hemorrhage risk assessment. We understand this fluctuation is related to seven Michigan hospitals closing their birthing units since 2018. Quantitative blood loss, another element of the patient safety bundle, has shown similar improvements with participating Michigan birthing hospitals reporting compliance of 79% in 2019 and 97% in 2023.



Data Provided by Michigan Health and Hospital Association (MHA)

OBSTETRIC HEMORRHAGE

Between 2012-2016, obstetric hemorrhage was one of the most common causes of pregnancy-related death in Michigan. Opportunities exist to assess risk, anticipate and plan prior to an obstetric hemorrhage event.

A standardized approach to treating obstetric hemorrhage includes a clearly defined, staged checklist of appropriate actions to be taken in an emergency. Multidisciplinary coordination and preparation, particularly with the blood bank, is critical in providing safe obstetrical care.

Stryker Bus hemorrhage demonstration at the 2024 Maternal Infant Health Summit provided an overview of technology used to evaluate maternal blood loss.

AIM Patient Safety Bundle for Obstetric Hemorrhage

Downloadable PDF of the bundle

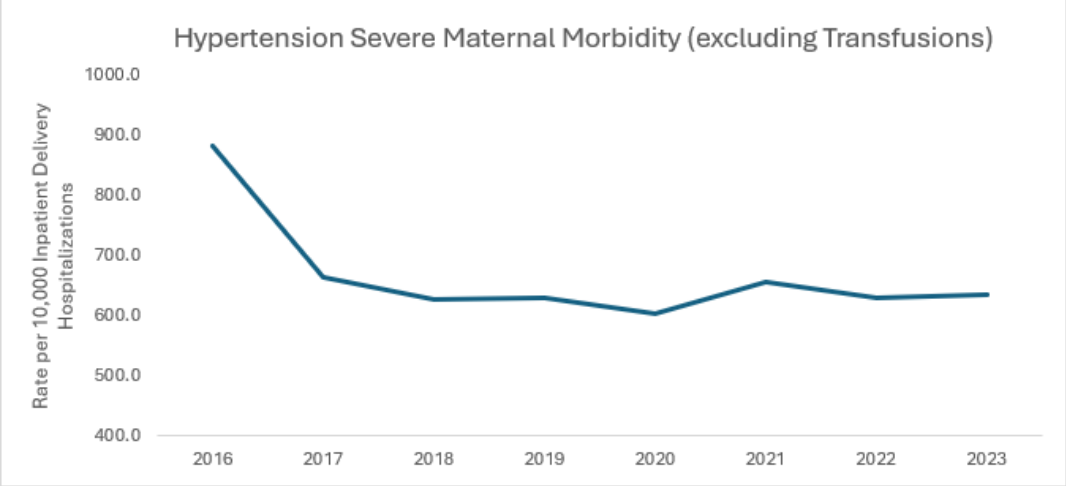
Complete bundle resource listing

SEVERE HYPERTENSION

Hypertension remains one of the leading causes of maternal mortality and severe maternal morbidity (SMM) in the state of Michigan. From November 2015 to December 2024, more than 80% (approximately 81.3%) of birthing hospitals participated in the implementation of the AIM Severe Hypertension in Pregnancy patient safety bundle. The MI AIM Collaborative provided essential support through technical assistance, site visits, ongoing education, and data-driven insights to guide birthing hospitals in improving the quality of maternal care based on QI data. In MI AIM participating hospitals, between 2011-2015 and 2016-2023, the statewide SMM rate of hemorrhage excluding blood transfusions, for patients with preeclampsia/eclampsia, decreased from 6.9% to 6.5%, reflecting a percentage change of 5.8%.

Michigan birthing hospitals are consistently focused on timely treatment of severe hypertension. In 2018, 47 birthing hospitals in Michigan reported 52% compliance with the timely treatment of severe hypertension process measure. The percentage of compliance is steadily climbing year over year as evidenced by the following: 64% (57 hospitals in 2019), 72% (58 hospitals in 2020), 79% (61 hospitals in 2021), 83% (57 hospitals in 2022), and 84% (60 hospitals in 2023).

Clinicians treating severe hypertensive patients understand the importance and impact of treating blood pressure within 30-60 minutes of identifying severe hypertension to reduce the risk of eclampsia and other life-threatening conditions. Clinicians also recognize the postpartum period remains a vulnerable time for hypertensive patients and place a strong emphasis on follow-up within 72 hours post-delivery to further reduce the risk of poor outcomes. The improvements in compliance with the Severe Hypertension in Pregnancy patient safety bundle are a direct result of these practice improvements and continued education. As we continue our efforts, the MI AIM Collaborative remains committed to engaging all birthing hospitals across the state in quality improvement initiatives that directly address the drivers of maternal mortality and severe maternal morbidity, ensuring improved health outcomes for all. Our dedication to this work will persist as we strive for 100% participation and sustainability with the Severe Hypertension in Pregnancy patient safety bundle.



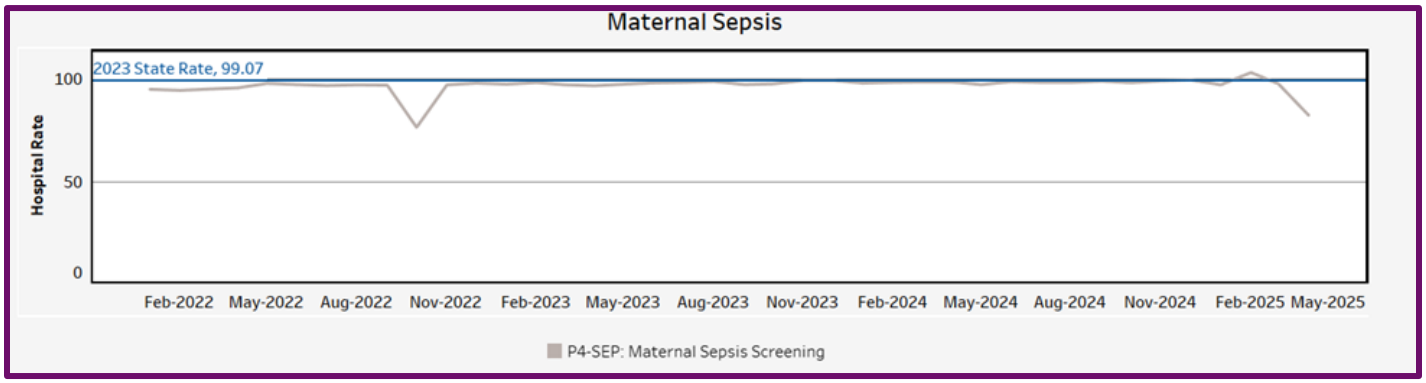
Data Provided by Michigan Health and Hospital Association (MHA).

SEPSIS

By April 2025, 49 of the 57 (86%) participating birthing hospitals that have fully implemented the Sepsis in Obstetric Care patient safety bundle have submitted sepsis-related data to MI AIM. Since 2024, MI AIM participating birthing hospitals have increased sepsis bundle implementation by six birthing hospitals.

The implementation of the Sepsis in Obstetric Care patient safety bundle began in November 2023, with the start of a Sepsis Collaborative. Michigan had an 18-month collaborative including 67 birthing hospitals. The collaborative met monthly, provided educational materials, and coached the hospital teams through implementation challenges. Hospitals were divided into five mentorship teams that included a physician, nurse, community leader, and patient with lived experience of maternal sepsis. The teams met monthly and had about 15 hospital representatives join each meeting.

Some of the successes of the Sepsis Collaborative and Patient Safety Bundle implementation included hospitals creating protocols, order sets, and processes to improve maternal sepsis care. Patients were provided with warning signs education as a guide on when to seek medical care (impending maternal morbidity or mortality), and clinicians learned about how to debrief with patients after sepsis and other traumatic events. The biggest challenge is that implementation and improvement take time.



Data Provided by Michigan Health and Hospital Association (MHA)

USE THE MI AIM DASHBOARD TO EVALUATE YOUR HOSPITAL

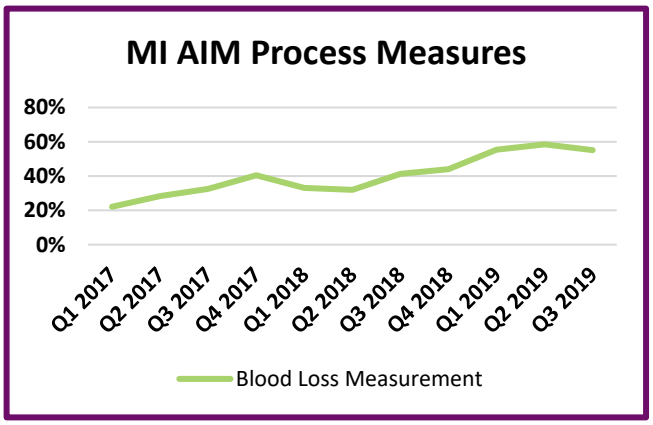
MI AIM Dashboard

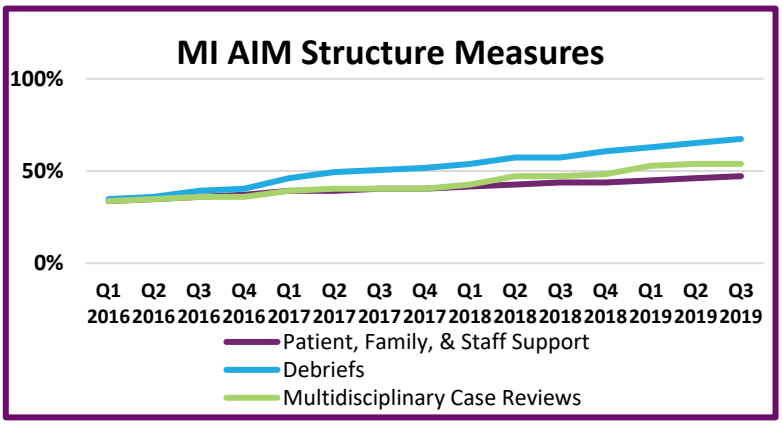
To ensure high quality healthcare delivery for moms across Michigan, MI AIM partners with MHA and MDHHS to assist hospitals in improving data collection.

The MI AIM KeyMetrics Dashboard is available to MI AIM participating hospitals and assists in visualizing data that is collected as part of the patient safety bundles. The dashboard allows participating hospitals to see how data trends over time, and streamlines= data collection and data entry to save hospitals time and money.

The MI AIM Dashboard is available at KeyMetrics.

The link to request new user access is found on the log-in page. **Please contact keystonedata@mha.org with dashboard or data questions.**





2024 MI AIM DESIGNATION CRITERIA

Sixty-four of Michigan's birthing hospitals received MI AIM Quality Improvement Awards in 2024, in recognition of improving care for mothers and babies.

28 Platinum Awards | 29 Gold Awards | 6 Silver Awards | 1 Bronze Awards

MI AIM designation criteria change annually to encourage further quality improvement and account for new changes to the MI AIM program. Current and past MI AIM designation criteria can be reviewed here.

MI AIM Quality Improvement Designation Awards are based on a hospital's participation and commitment to MI AIM, data reporting, implementation of Patient Safety Bundles, improvement in patient safety, and participation in continuing education and other additional quality improvement initiatives.

"Maternal care begins well before entering the delivery room, and having confidence in your providers is essential for the health of the child and mother throughout the pregnancy."

-Dr. Brian Tesler, OB/GYN, McLaren Health Care Chief Medical Director of Women's Health

McLaren Birthing Center Again Achieves Platinum Status | The Morning Sun

OBSTETRIC CARE FOR WOMEN WITH OPIOID USE DISORDER

Rural Pilot Hospitals

In alignment with the State's Advancing Healthy Births Plan and nationally recognized Gold Standards, MI AIM is supporting birthing hospitals in Michigan's Upper Peninsula to pilot the AIM Obstetric Care for Women with Opioid Use Disorder Patient Safety Bundle. These efforts emphasize care that maintains the mother-baby dyad during the prenatal and postpartum periods, as well as throughout the hospital stay.

MI AIM is working to improve outcomes for mothers and newborns impacted by substance exposure, with a specific focus on Opioid Use Disorder (OUD).

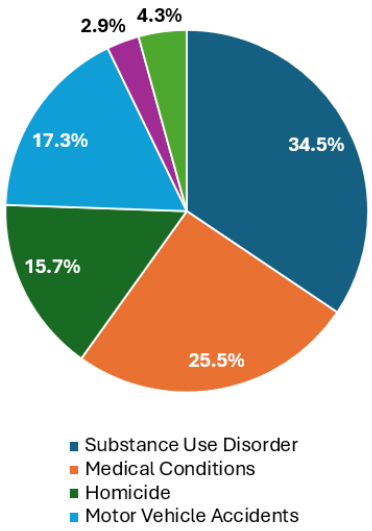
The most common cause of pregnancy-associated, not related maternal deaths in Michigan is substance use disorder.

Opioid use disorder and overdoses are preventable.

Opioid use among pregnant women is a significant public health concern.

From 2010 to 2017, the number of women with opioid-related diagnoses at delivery hospitalization increased by 131%.

Pregnancy-Associated, not Related Maternal Deaths in Michigan, 2017-2021



Data source: Michigan Maternal Mortality Surveillance System, 2017-2021

MI AIM is working with partners across Michigan to implement universal substance use screening, promote risk reduction models, increase access to medical care and treatment for pregnant and postpartum women with OUD, optimize care for substance exposed newborns and decrease stigma related to substance use.

Additional Resources

AIM Obstetric Care for Women with Opioid Use Disorder patient safety bundle
AIM Care for Women with OUD Bundle Implementation
March of Dimes Neonatal Abstinence Syndrome
CMQCC Mother & Baby Substance Exposure Initiative
CDC Prevent Opioid Overdose Deaths
Michigan Substance Use Disorder Resources

LINKS & SELECT REFERENCES

Data Sources:

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1. http://www.miaim.us/
2. MI AIM Designation Criteria
3. MI AIM KeyMetric Dashboard

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