



Ohio Pregnancy-Associated Mortality Review (PAMR)

2015

Overview of Ohio PAMR

The Ohio Department of Health established the Ohio Pregnancy-Associated Mortality Review (PAMR) in 2010 to ensure that maternal deaths are identified and initiatives are developed to prevent future maternal deaths. PAMR is a multidisciplinary committee of experts that reviews all **pregnancy-associated deaths** and determines if each death was **pregnancy-related**. Ohio's PAMR committee is made up of volunteer professionals from across the state. According to Centers for Disease Control and Prevention, only two-thirds of states have functioning maternal mortality review committees such as PAMR.

Pregnancy-associated: Death during pregnancy or within one year of the end of pregnancy, regardless of cause.

Pregnancy-related: Death during or within one year of pregnancy that is related to the pregnancy.

Ohio PAMR identifies maternal deaths from death certificates using the pregnancy status checkbox, ICD-10 obstetric cause of death codes, and linkage to live birth or fetal death certificates. However, death certificate data alone do not provide detailed information on causes of maternal death.

Approximately **650** women die of pregnancy or delivery complications in the U.S. each year, with ratios doubling in the last decades. In 2011, the maternal mortality ratio was **17.8** deaths per 100,000 live births, compared to an all-time low of **7.2** in 1987.

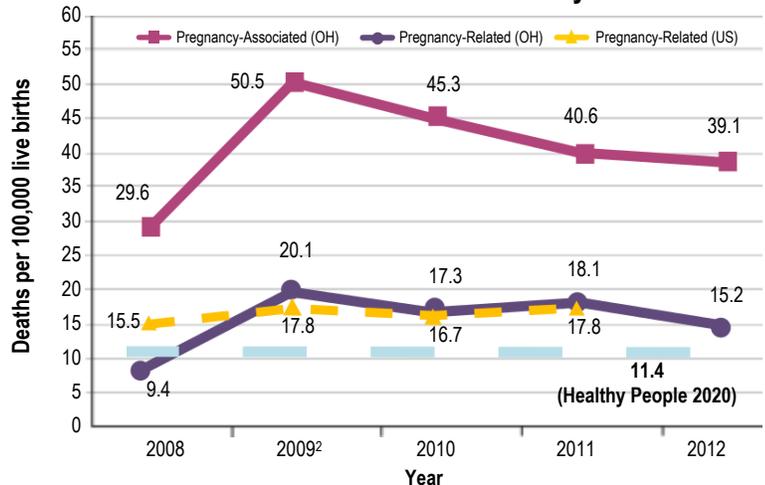
Pregnancy Mortality Surveillance System, 2014, CDC

Additional records (medical records, autopsy reports, Emergency Medical Service, etc.) are then requested and a registered nurse abstracts information to create a de-identified case summary for each death. These case summaries are presented to the PAMR committee for review, discussion and the determination of underlying and contributory factors at the individual, clinical, and systems levels surrounding the death.

Ohio PAMR Stakeholders

- Medical Professionals
- Public Health Professionals
- Governor and Ohio General Assembly
- County Coroners
- Law Enforcement Officials
- Ohio Child Fatality Review / Fetal Infant Mortality Review
- Alcohol, Drug Addiction, and Mental Health Services Boards
- Ohio Birthing Hospitals
- Women and their Families

Ohio¹ and U.S. Maternal Mortality Ratios



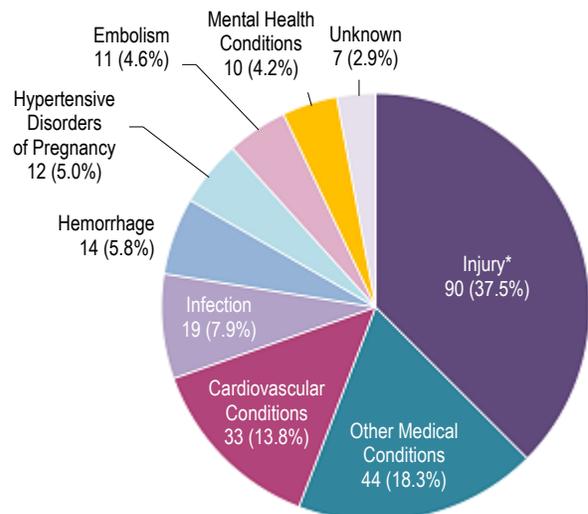
Source: Ohio Pregnancy-Associated Mortality Review

¹ Data are preliminary

² Ohio's ratio may be unreliable due to small number of deaths

Note: 2012 US Pregnancy-related mortality ratios are not yet available

Ohio Pregnancy-Associated Deaths¹ 2008-2012²



Source: Ohio Pregnancy-Associated Mortality Review Data

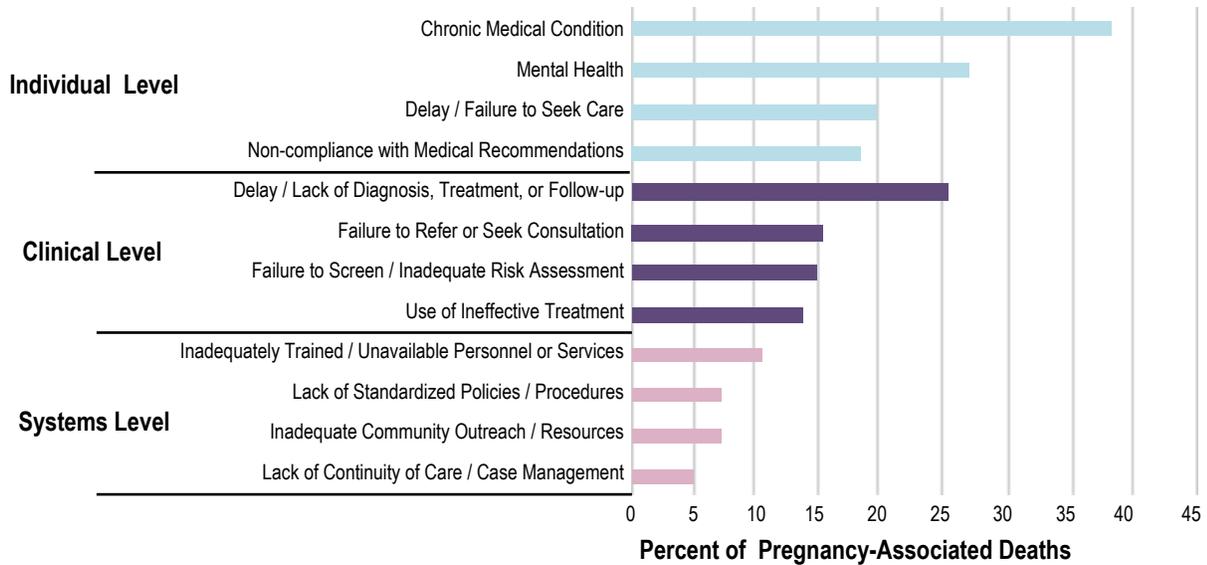
* Of the 90 injury deaths, about 69 percent were unintentional, 27 percent were intentional, and 4 percent were of unknown intent.

- Most common manners of death were accident (68%), homicide (21%) and suicide (7%).
- Close to 27 percent were drug-related.

¹ Based on CDC's Maternal Mortality Cause of Death Classifications

² Data are preliminary

Most Common Factors Associated with Maternal Deaths in Ohio, 2008-2012



Source: Ohio Pregnancy-Associated Mortality Review

PAMR's Activities and Initiatives to Address Maternal Mortality

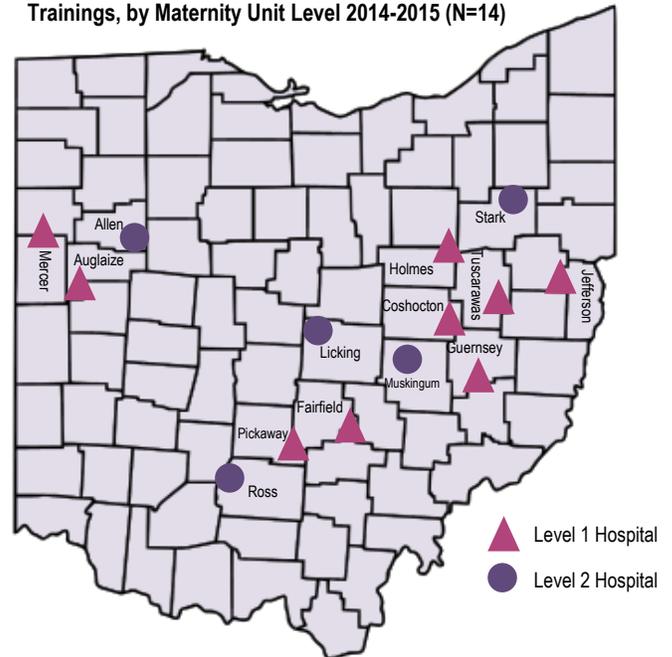
✓ Merck for Mothers and AMCHP—Every Mother Initiative (EMI)

- Ohio was one of six states to participate in the Every Mother Initiative (EMI), an Action Learning Collaborative funded by Merck for Mothers and operated by the Association of Maternal and Child Health Programs (AMCHP). The EMI has helped Ohio strengthen its maternal mortality surveillance system and provided funding for translational (“data-to-action”) projects.

✓ Obstetric Emergency Simulation Trainings for Obstetric Providers

- PAMR surveyed maternity units to uncover training needs and preferences.
- Using EMI funding, ODH contracted with the Clinical Skills Education and Assessment Center at The Ohio State University Wexner Medical Center to provide simulation training in three rural Ohio communities.
- Three clinical simulations (postpartum hemorrhage, cardiomyopathy, and preeclampsia) were developed based on PAMR cases and designed to engage staff within labor and delivery and postpartum units.
- 122 health care professionals representing 14 hospitals (nine level I and five level II) participated during 2014-2015.
- PAMR is developing in-depth trainings to offer OB clinical and nurse educators across the state.

Participating Hospitals in OB Emergency Simulation Trainings, by Maternity Unit Level 2014-2015 (N=14)



✓ Maternal Mortality Module in Ohio's Public Health Information (Data) Warehouse

- ODH's Bureau of Vital Statistics created a stand-alone PAMR module within Ohio's Data Warehouse. This module compiles selected information from committee review, birth certificates and death certificates into a convenient and accessible format to generate useful statistics related to maternal mortality in Ohio.

Data Notes: Figures above do not reflect all pregnancy-associated deaths ascertained during the time period. The Ohio PAMR also does not currently review deaths to women who were Ohio residents but died out of state nor deaths of non-residents in Ohio. Therefore, Ohio maternal mortality ratios are likely underestimated.

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