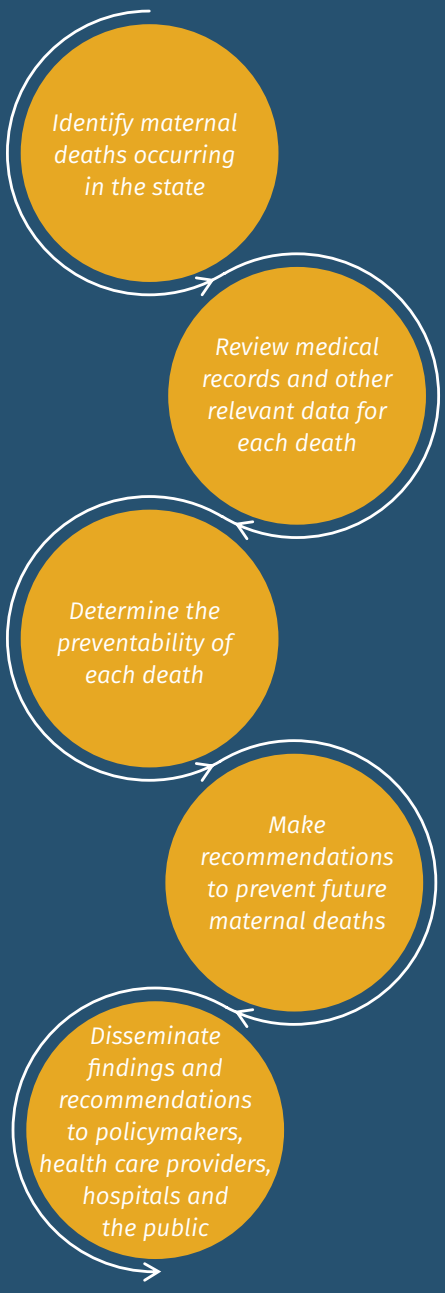
MDMOM

Maryland Maternal Health Innovation Program

MATERNAL MORTALITY IN MARYLAND

PROGRAM GOALS



MARYLAND MATERNAL MORTALITY REVIEW PROGRAM

- Coordinated by the Maryland Department of Health with administrative support from the Maryland State Medical Society
- Since 2001, maternal death reviews have been conducted to investigate all pregnancy-associated deaths of Maryland resident women and to identify opportunities to prevent future deaths

DEFINITIONS

PREGNANCY-ASSOCIATED DEATHS are deaths during pregnancy or up to one year after the end of pregnancy from any cause

PREGNANCY-RELATED DEATHS are a subset of pregnancy-associated deaths that are causally associated with pregnancy

- Deaths are reviewed by a multidisciplinary committee of clinical and public health experts and community representatives from across Maryland
- Maternal Mortality Review Reports are released every year and available at: https://phpa.health.maryland.gov/mch/Pages/mmr.aspx
- Since 2018, a legislated Maternal Mortality Review Stakeholder Group meets at least twice a year to review the findings and recommendations in annual maternal mortality reports, review the status of implementation of previous recommendations, and identify new recommendations with a focus on initiatives to address disparities in maternal deaths
- Maternal Mortality Review Stakeholder Group Meeting Reports are available at: https://phpa.health.maryland.gov/mch/Pages/MMR_Stakeholder.aspx

mdmom.org

Please visit our website for program news, maternal health data and resources.

contact@mdmom.org | Twitter: @MD_Mom_

HRSA Health Resources & Services Administration

MATERNAL MORTALITY IN MARYLAND: 2013-2017

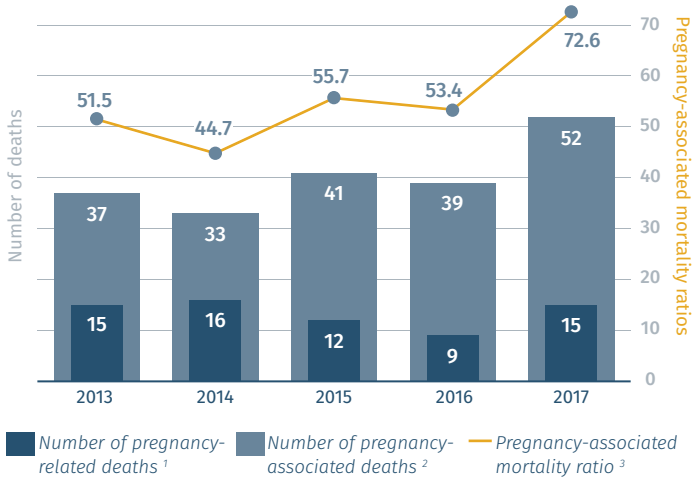
TRENDS IN PREGNANCY-RELATED AND PREGNANCY-ASSOCIATED DEATHS

- Pregnancy-associated mortality increased between 2013 and 2017, while pregnancy-related mortality did not change
- Of all pregnancy-associated deaths (N=202) during this period, a third (n=67) were determined by the review committee to be pregnancy-related deaths
- The 2013-2017 pregnancy-related mortality ratio in Maryland was slightly higher than the corresponding 2011-2016 national ratio (18.4 vs. 17.2 deaths per 100,000 live births)

RISK FACTORS FOR PREGNANCY-RELATED AND PREGNANCY-ASSOCIATED DEATHS

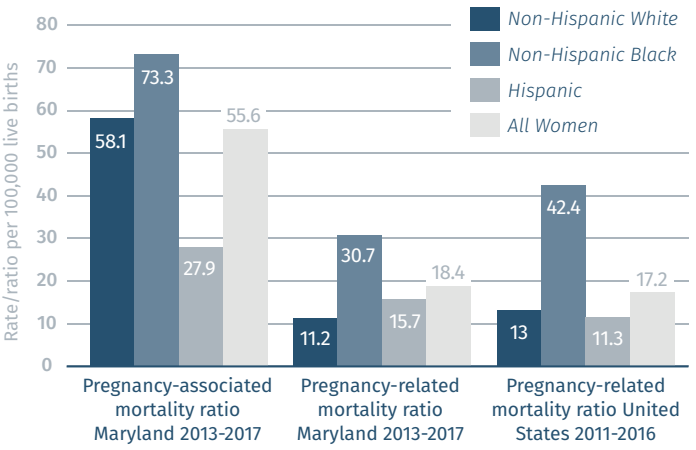
- Racial-ethnic disparities in both pregnancy-associated and pregnancy-related mortality persisted during this period, being especially pronounced for pregnancy-related mortality
- Black and Hispanic women have 2.6 and 1.4 times, respectively, higher risks of dying from pregnancy-related causes than White women
- Compared to 2011-2016 national data, 2013-2017 pregnancy-related mortality ratios in Maryland were overall lower for non-Hispanic White and Black women, but slightly higher for Hispanic women

MATERNAL MORTALITY LEVELS AND TRENDS IN MARYLAND

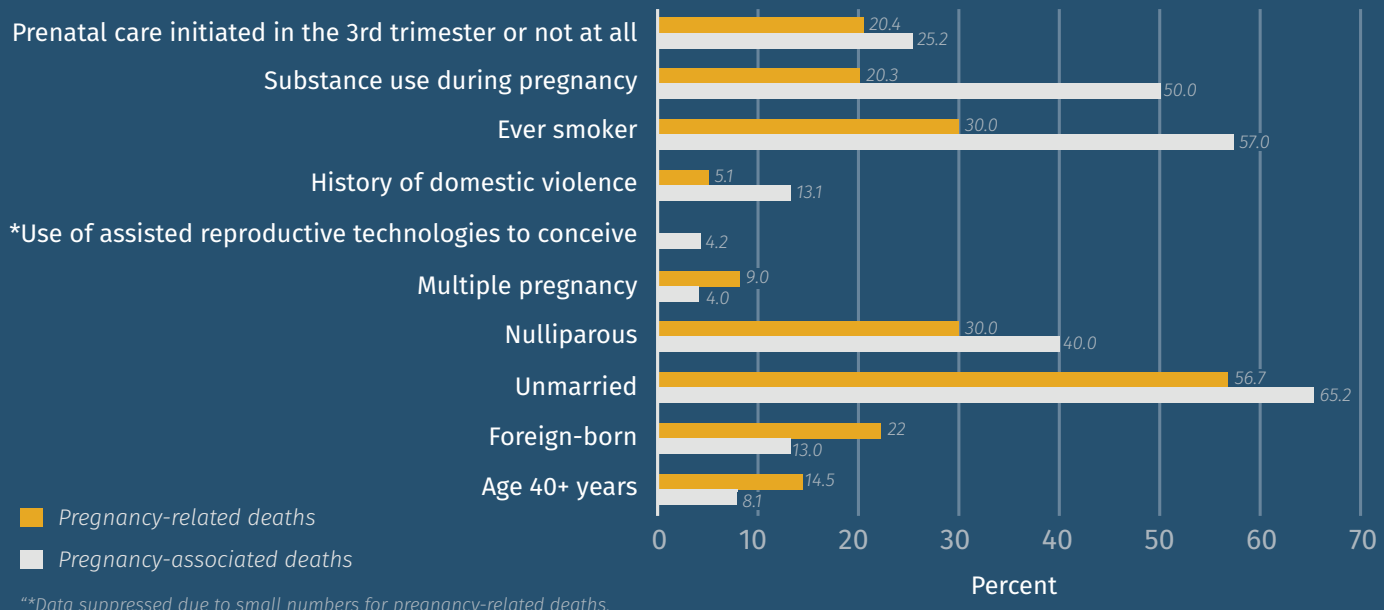


Notes: Centers for Disease Control and Prevention definitions. [1]A pregnancy-related death is the death of a woman while pregnant or within one year of the end of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by her pregnancy or its management, but not from accidental or incidental causes. [2]A pregnancy-associated death is the death of a woman while pregnant or within one year of the end of pregnancy, irrespective of the duration and site of the pregnancy, and regardless of the cause of death. [3]Pregnancy-associated deaths per 100,000 live births in the same time period.

RACIAL-ETHNIC DISPARITIES IN MORTALITY IN MARYLAND AND THE UNITED STATES



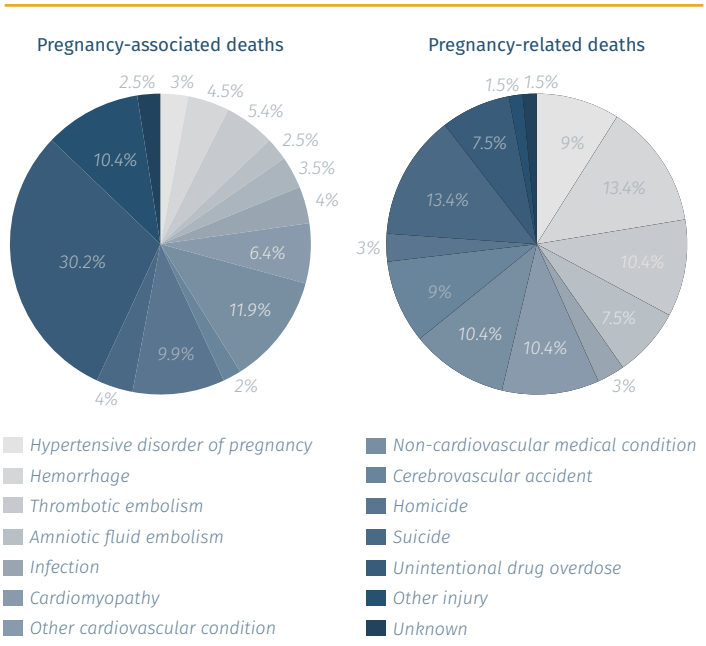
MATERNAL CHARACTERISTICS AMONG PREGNANCY-ASSOCIATED AND PREGNANCY-RELATED DEATHS



*"*Data suppressed due to small numbers for pregnancy-related deaths. Percentages are calculated after excluding deaths with unknown information.*

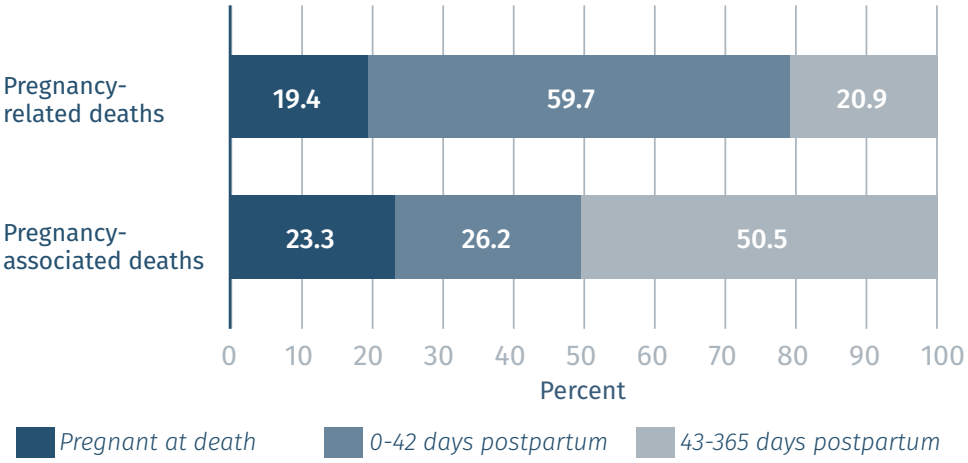
CAUSES OF PREGNANCY-RELATED AND PREGNANCY-ASSOCIATED DEATHS

- Unintentional drug overdose was the leading cause of pregnancy-associated deaths (n=61 or 30.2%) during 2013-2017
  - Non-Hispanic White women had a 2.5 times higher risk of dying from such than non-Hispanic Black women
- About a quarter of pregnancy-associated deaths (49 or 24.3%) and pregnancy-related deaths (15 or 22.4%) were caused by injuries
- Traditional causes of pregnancy-related mortality, such as hemorrhage, severe hypertension, embolism and infection contributed fewer deaths (n=29 or 43.3%) than all chronic medical conditions and injuries combined (n=35 or 52.2%)



TIMING OF PREGNANCY-RELATED AND PREGNANCY-ASSOCIATED DEATHS

- Less than a quarter (23.3%) of 2013-2017 pregnancy-associated deaths occurred during pregnancy, 26.2% before the traditional 6-week postpartum visit, and 50.5% between 6 weeks and one year after the end of the pregnancy
  - 80.6% of 2013-2017 pregnancy-related deaths occurred in the postpartum period



77% OF PREGNANCY-RELATED DEATHS AND

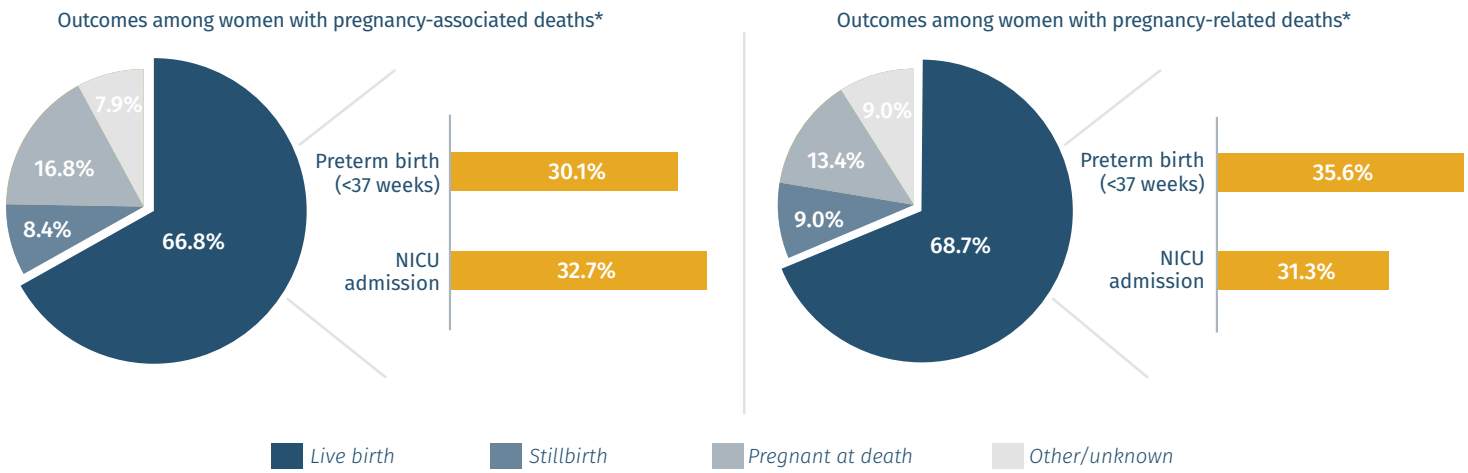
81% OF PREGNANCY-ASSOCIATED DEATHS

in Maryland during 2013-2017 were

PREVENTABLE OR POTENTIALLY PREVENTABLE.

FETAL AND NEWBORN OUTCOMES

- About two thirds (66.8%) of women who died during pregnancy or within one year of the end of pregnancy between 2013 and 2017 had a live birth and 8.4% had a stillbirth



Note: Preterm birth status was unknown for two pregnancy-associated deaths and one pregnancy-related death; NICU admission status was unknown for 31 pregnancy-associated deaths and 14 pregnancy-related deaths. Percentages are calculated after excluding deaths with unknown preterm birth or NICU admission status.

MATERNAL MORTALITY REVIEW COMMITTEE
RECOMMENDATIONS

**As stated in the Maryland Maternal Mortality Review Program Annual Reports[1,2]*

IMPROVE ACCESS AND COORDINATION OF CARE TO ONE YEAR POSTPARTUM[1]

- Extend Medicaid and other insurance coverage to provide postpartum care to one year, including coverage for primary care, specialty care, medications, mental health and substance use treatment services
- Prior to discharge after delivery, create mechanisms to coordinate warm hand-off for patients needing primary care and specialty follow-up as well as those needing behavioral health treatment, including appointments and referrals, and address needs such as transportation and childcare
- Develop mechanisms for improved coordination between obstetric, mental health, and substance use treatment providers
- Establish guidelines for improved communication concerning pregnant and postpartum patients between hospital units, specifically emergency departments and labor and delivery units

REINFORCE SCREENING AND SUPPORT SERVICES FOR SOCIAL PREDICTORS OF MATERNAL DEATH[1]

- Provide training for providers and staff on trauma-informed care
- Provide trauma counseling for patients with behavioral health disorders and intimate partner violence
- Promote universal screening every trimester for substance use, mental health, and intimate partner violence
- Improve access to intimate partner violence counseling and services
- Provide up-to-date resource lists to providers from local government agencies identifying services for substance use, mental health, and intimate partner violence referrals

INCREASE TRAINING AND AWARENESS REGARDING DISPARITIES IN MATERNAL HEALTH[1]

- Provide implicit bias training for obstetric providers and hospital staff
- Require all hospitals with delivery services to internally review and analyze maternal health outcomes data for racial disparities

The Committee continues to support the detailed recommendations put forward in the Maryland Maternal Mortality Review released in 2018.

ADDRESS SUBSTANCE USE DISORDER IN PREGNANCY[2]

- Promote universal screening during pregnancy, at delivery, and postpartum for substance use, mental health, and intimate partner violence
- Document screening tools used, referrals given, and treatment plans in perinatal records
- Reduce unintended pregnancy and encourage reproductive life planning
- Improve communication and collaboration between providers of prenatal care and other providers (mental health, substance use, primary care, oral health, etc.)
- Promote interdisciplinary case management among substance use, mental health, and obstetric providers
- Improve safe opioid prescribing practices
- Encourage Prescription Drug Monitoring Program utilization by providers
- Encourage naloxone co-prescribing and 3rd party prescribing (prescribing for family or friends of individuals at risk of overdose)
- Inform substance use treatment providers about perinatal health

***Sources**

[1]Maryland Maternal Mortality Review Program. 2019 Annual Report. Available at: https://phpa.health.maryland.gov/mch/Documents/MMR/MMR_2019_AnnualReport.pdf; [2]Maryland Maternal Mortality Review Program. 2018 Annual Report. Available at: https://phpa.health.maryland.gov/documents/Health-General-Article-§13-1207-2018-Annual-Report-Maryland-Maternal-Mortality-Review.pdf