



Maternal Mortality and Morbidity Review in Massachusetts A Bulletin for Health Care Professionals

Racial and Ethnic Inequities and Hypertension among Pregnancy-Associated Deaths—Massachusetts, 2014-2017

Massachusetts Department of Public Health

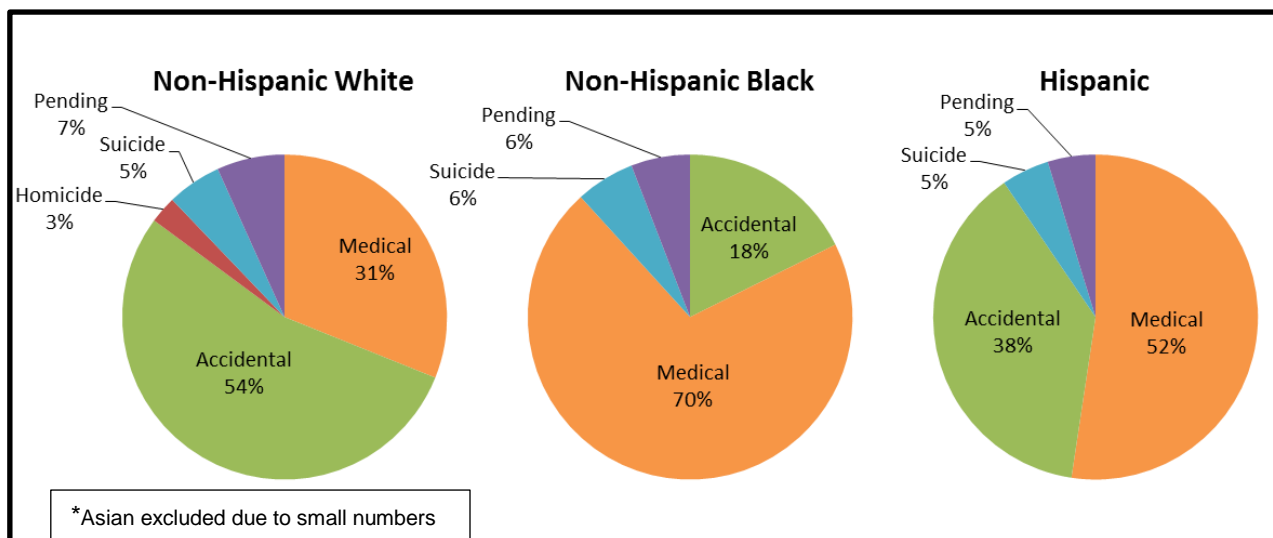
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Racial inequities in maternal mortality are pronounced with black non-Hispanic individuals more likely to die from childbirth compared to white non-Hispanic individuals. Among black non-Hispanic individuals, common protective factors such as socioeconomic status and education do not reduce the risk of dying of pregnancy-related complications. **The purpose of this data brief is to highlight racial and ethnic inequities with a focus on hypertension in causes of death in Massachusetts (MA).**

Manner and Cause of Death by Race and Ethnicity among Pregnancy-Associated Deaths

Among the 115 pregnancy-associated deaths identified by the MDPH during 2014-2017, 49 were due to medical causes, 59 to injury related causes, and seven with pending cause of death. The injury-related deaths included 51 accidental causes (drug poisonings, motor vehicle accidents, etc.), six suicides, and two homicides. Differences in manner of death exist by race and ethnicity (see Figure 1). The largest percentage of pregnancy-associated deaths among white non-Hispanic individuals (n=40, 54%) were due to accidents, while the largest proportion of deaths among Asian (n=3, 100%), black non-Hispanic (n=12, 70.6%) and Hispanic individuals (n=11, 52.4%) were due to medical causes.

Figure 1. Manner of Death by Race and Ethnicity*



Medical Cause of Death and Hypertension Prevalence

Two of the most common medical causes of death among the pregnancy-associated deaths during 2014-2017 that are potentially preventable included complications of pregnancy, labor, and delivery (n=15) and cardiovascular diseases (n=9). Hypertension can be associated with both of these causes of death and present as chronic hypertension, gestational hypertension, or preeclampsia/eclampsia.

Among all 115 pregnancy-associated deaths, 24 (20.9%) had the presence of hypertension noted on one or both of the birth or death certificates (see Figure 2 for case breakdown by type of hypertension). Thirty-five percent of pregnancy-associated deaths with medical causes had documented hypertension, compared to 11.9% of pregnancy-associated deaths from an accidental cause of death, which highlights that hypertensive disorders are a major contributor to maternal mortality in Massachusetts. When stratified by race and ethnicity, black non-Hispanics had the highest rate of documented hypertension (47%), followed by Hispanic (23.8%) and white non-Hispanic (13.5%) pregnant individuals.

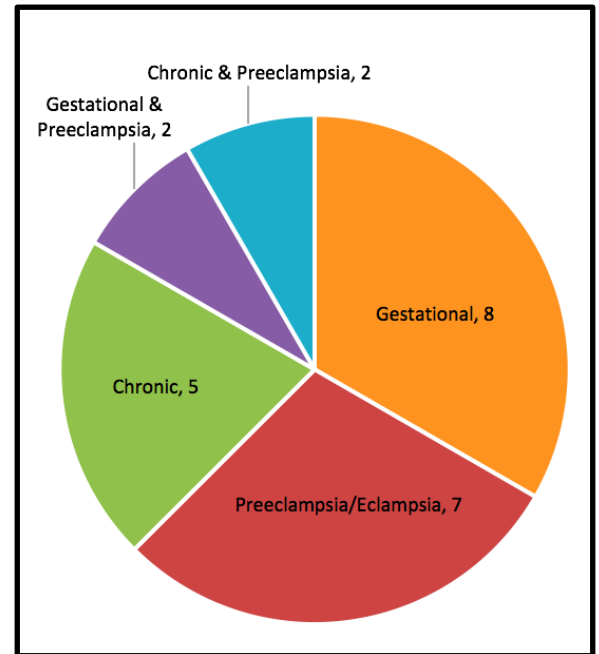


Figure 2. Type of Hypertension Documented

Conclusion/Recommendations

Racial inequities exist in maternal mortality, and hypertensive disorders are a major driver of maternal mortality among black non-Hispanic individuals in Massachusetts. **In MA, black non-**

Hispanic individuals had the highest percentage of deaths due to a medical cause at 70.6% and the highest percent of documented hypertension on birth and death certificates at 47%.

MA has taken the initial steps to address these inequities through the Massachusetts Perinatal Neonatal Quality Improvement Network’s participation in the Alliance for Innovation on Maternal Health (AIM). The AIM is a “national, cross-sector, data-driven maternal safety and quality improvement initiative focused on increasing the adoption of evidence-based maternal safety best practices to promote safe maternal healthcare for every U.S. birth (ACOG.org, 2019).” The goal of AIM is to gain a better understanding of the root causes and trends that lead to maternal mortality and to inform clinical practice and policy to prevent future deaths. The AIM bundles that MA will focus on incorporating into maternal care include *Obstetric Care for Women with Opioid Use Disorder, Obstetric Hemorrhage, Severe Hypertension in Pregnancy, Safe Reduction of Primary Cesarean, and Reduction of Peripartum Racial/Ethnic Disparities* with the goal of reducing the incidence of maternal mortality and racial inequities.

Resources

- **Massachusetts Department of Public Health** Maternal Mortality & Morbidity Review Initiative webpage: <https://www.mass.gov/service-details/maternal-mortality-and-morbidity-initiative>
- **Massachusetts Perinatal Quality Collaborative (MPQC)** partnership with the Alliance for Innovation in Maternal Health (AIM) to support the implementation of safety bundles: <https://mapqc.org/projects/ma-aim-project/>

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