

Testimony of Melanie J. Rouse, PhD
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Before the House Ways and Means Committee Hearing
"Overcoming Racial Disparities and Social Determinants in the Maternal Mortality Crisis"
May 16, 2019

Chairman Neal, Ranking Member Brady, and members of the Ways and Means Committee, thank you for the opportunity to testify at this hearing, "Overcoming Racial Disparities and Social Determinants in the Maternal Mortality Crisis." I am Dr. Melanie Rouse, the Maternal Mortality Projects Coordinator in Virginia Department of Health's, Office of the Chief Medical Examiner, and I would like to commend you for holding this hearing. Thank you for the opportunity to speak on this important topic.

Virginia Maternal Mortality Review Team and Overall Data

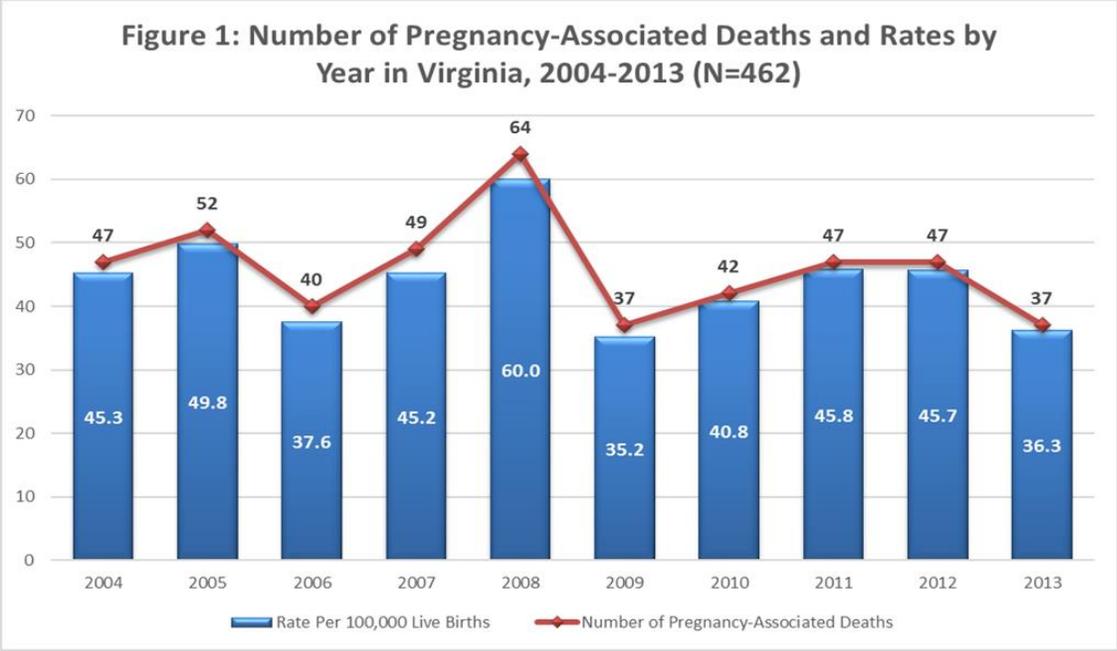
Virginia's Maternal Mortality Review Team was established in 2002 as a partnership between the Virginia Department of Health's Offices of the Chief Medical Examiner and Family Health Services. It is a multidisciplinary group with representatives from academic institutions, behavioral health agencies, and hospital associations, state chapters of professional associations, state medical societies, and violence prevention agencies. The disciplines represented include forensic pathology, maternal fetal medicine, nurse midwifery, obstetrics, pharmacy, nutrition, patient safety, psychiatry, public health, health services research, and social work. The Team collects data on and reviews the deaths of all Virginia residents who were pregnant within a year of their death regardless of the outcome of the pregnancy or the cause of death. These deaths are termed "pregnancy-associated deaths or "PADs".

Virginia's Maternal Mortality Review Team is dedicated to the identification of all pregnancy-associated deaths in the Commonwealth and the development of recommendations for interventions in order to reduce preventable deaths. The Team collects records from the

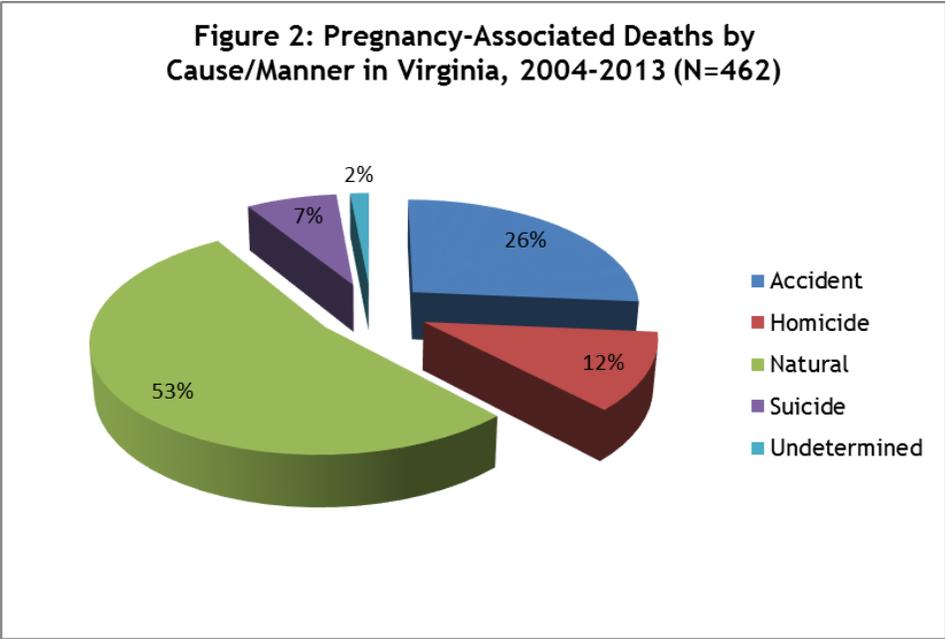
hospital where the birth or pregnancy related issue, concern, or termination, occurred, the birth attendant's records, hospital records where the death occurred, the autopsy records and the Medical Examiner case investigation records. The team also collects records from other health care providers and specialists, social service agencies, and mental health facilities to ensure that each review is comprehensive and thoroughly assess the woman's life, health and healthcare utilization in the 5 years prior to her death. The Team reviews each case to determine the community-related, patient-related, healthcare facility-related and/or healthcare provider-related factors that contributed to the woman's death. The Team also assesses or recommends needed changes in the care received that may have led to better outcomes. The Team then uses consensus decision making to determine whether the death was preventable and/or related to the pregnancy.

Between 2004 and 2013, 462 women died of a PAD in Virginia. The number of deaths and rate of deaths varied from year to year with no clear pattern suggesting a clear increase or decrease (Figure 1). The overall maternal mortality rate¹ was 43.9 deaths per 100,000 live births during this period. Preliminary numbers for the years 2015 and 2016 suggest that maternal mortality rates in Virginia have increased.

¹ Ratio provided is the Maternal Mortality Rate (MMR), which is calculated by dividing the number of deaths in a category by the number of live births and then multiplying that number by 100,000. The MMR is the standard measure for evaluating maternal morbidity and mortality.



Overall, approximately 53% of PADs in Virginia were due to natural causes (Figure 2). Accidental deaths represented the next largest manner of death among PADs in Virginia at 26%. Among the leading causes of death are cardiac disorders (12.9%), accidental overdoses (12.9%), motor vehicle accidents (11.8%), homicide (11.5%) and Suicide (7.5%). Nearly 55% of these deaths occurred 43 or more days following the end of the index pregnancy.



Several risk factors were identified among PADs in Virginia. The most prevalent risk factors identified included mental illness, chronic substance abuse, and chronic medical conditions. Over 25% of maternal decedents in Virginia had been diagnosed with depression and approximately 20% had been diagnosed with anxiety at some time in their life. Nearly 25% of maternal decedents were also found to have chronic substance abuse. Data from the Virginia Team reveals that many chronic conditions, including chronic substance abuse and chronic mental illness, are not adequately addressed prior to pregnancy, during the pregnancy, post-partum period and beyond. The data also reveals that there is a lack of coordination of care with many women not receiving the appropriate screenings, referrals and/or being left to navigate the complicated health care system on their own.

Racial Disparities in Maternal Mortality in Virginia

Throughout the years of maternal mortality review in Virginia, significant racial disparities have been identified in the rates, causes of deaths, manners of deaths and contributors to mortality. These disparities have been found to extend across all socioeconomic and educational backgrounds. The maternal mortality rate for Black women (80.7) is over two times as high as White women (35.3). While maternal mortality was also seen among other races, the rate among other races was significantly lower than both African American and White women. There have also been significant differences found by race in regards to the manner of death. From 2009 – 2013 (Table 1), Black women (66.3%) were found to be more likely to die a natural death than White women were (45.8%) and less likely to die an accidental death (14.6% vs. 34.6%, respectively).

Manner of Death	White	African American	Other
Natural	49(45.8%)	59(66.3%)	7(63.6%)
Accidental	37(34.6%)	13(14.6%)	3(27.3%)
Homicide	9(8.4%)	11(12.4%)	3(27.3%)
Suicide	11(10.3%)	3(3.4%)	0(0.0%)
Undetermined	1(0.9%)	3(3.4%)	0(0.0%)

There were also significant differences in the leading causes of death by race. The leading causes of death among White women were accidental causes, including accidental overdose (18.7%) and motor vehicle accidents (13.1%), followed by suicide (10.3%) and cancer (10.3%). However, among Black and other race women, the top causes of death were natural causes followed by accidental causes. Among Black women, the leading causes of death included cardiac disorder (18%), homicide (12%) and the exacerbation of a chronic disease (11.2%). The leading causes of death among other race women included disorders of the central nervous system (27.3%) and homicide (27.3%) followed by accidental overdose (18.2%).

Differences in Urban vs. Rural Areas

In addition to differences in PADs in Virginia by race, there are also significant differences by geographic location. In rural areas, the leading causes of death were often from violent causes including motor vehicle accidents (21%), homicides (14%), accidental overdoses (11.4%) and Cardiac disorders (11.4%). Among the most significant contributors to mortality in rural areas are community services being unavailable (14%) or inaccessible (10%), provider-related delay in or lack of diagnosis or treatment (24%), a lack of continuity of care (15%) and facility policies that led to delays in care (8%). Environmental hazards, substance abuse and mental illness were also found to be significant contributors to mortality in rural areas.

Conclusion

Maternal mortality at the state and national level has been increasing over the last two decades. Maternal mortality review teams offer the opportunity to review these deaths, determine the factors that contributed to the deaths and to make recommendations for interventions and policies that can improve maternal health outcomes. The Team's review of PADs in Virginia has demonstrated that there is a need for a system of affordable, coordinated, and standardized care in the U.S. as a cultural value, a medical standard of care, and a human right. Improving the health outcomes of pregnant and postpartum women involves changes at the community, provider, facility and system level.