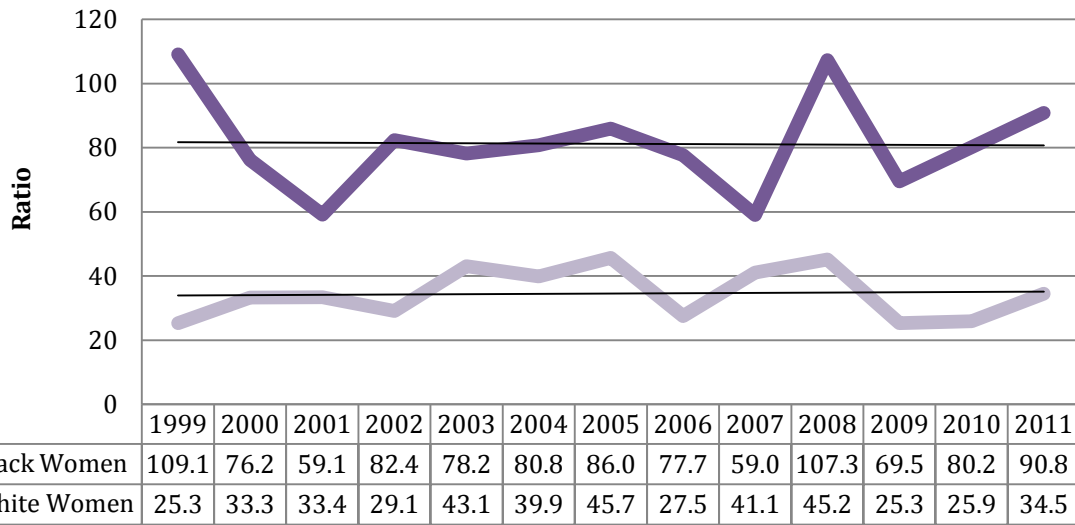


Trends in Pregnancy-Associated Death among Black Women and White Women in Virginia, 1999-2011

The Virginia Department of Health's Center for Health Statistics has identified all deaths of Virginia residents who were pregnant at the time of death or had a pregnancy within one year of dying since 1999. These deaths, termed "pregnancy-associated," are identified by examination of the cause of death to determine if a condition of pregnancy led to death, examination of the pregnancy check box which asks if the female decedent had been pregnant within three months of death, and/or by matching death certificates of women of childbearing age with fetal death and live birth certificates. Death certificates for all Virginia residents dying from a pregnancy-associated death are provided to the Pregnancy-Associated Mortality Surveillance System housed in the Virginia Department of Health's Office of the Chief Medical Examiner once each year. Information from these certificates is used to improve our understanding of the causes and manners of death and of the women who die during or soon after pregnancy.

Black women in the United States are known to suffer the greatest burden of pregnancy-associated death, a perplexing and consistently reported fact. Figure 1 below shows this to be true in Virginia as well. In each of the 13 years reported, the pregnancy-associated mortality ratio for Black women exceeds that for White women. The overall pregnancy-associated mortality ratio for the 13 year period was 81.2 per 100,000 live births among Black women and 35.1 per 100,000 live births among White women – Black women died at 2.3 times the rate of White women.

Figure 1. Ratio of Pregnancy-Associated Deaths to Live Births Among Black Women and White Women in Virginia, 1999-2011



As shown in Table 1, comparing the ratio of deaths to live births by manner of death between Black women and White women reveals the greatest difference is for homicides. Black women died at 4.9 times the ratio for White women. Black women and White women were equally likely to die from accidents such as motor vehicle collisions and accidental overdoses. Examination of the manners of death for both Black and White women reveals the largest number and the highest ratio of deaths to live births were due to natural causes with Black women dying at three times the rate of White women.

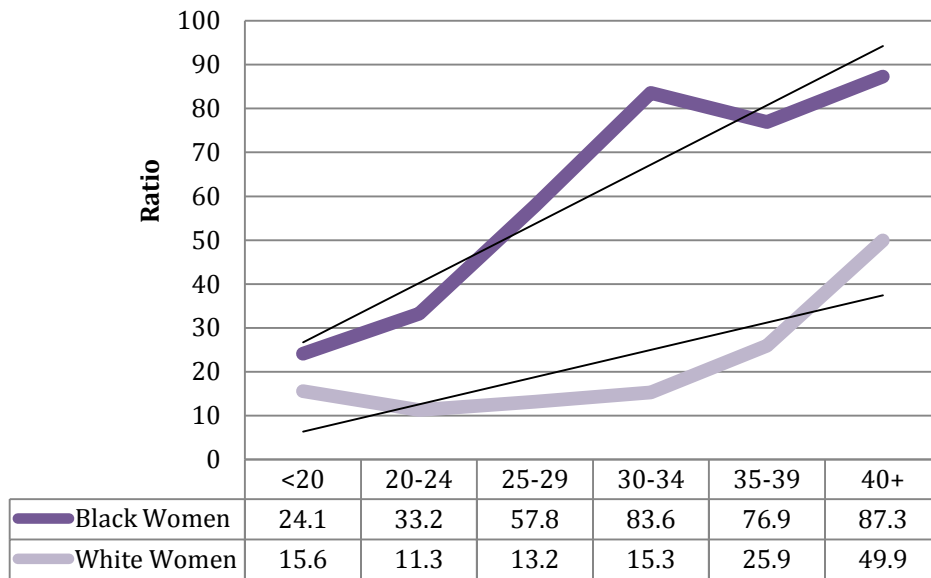
Table 1. Number and Pregnancy-Associated Ratio by Manner of Death by Race					
	Black		White		Ratio of Black to White Women
	Number	Ratio	Number	Ratio	
Accidents	35	11.9	110	11.9	1.0
Homicides	43	14.7	28	3.0	4.9
Natural	148	50.7	151	16.5	3.1
Suicide	7	2.4	28	3.0	0.8
Undetermined	4	1.4	4	0.4	3.5

Table 2 portrays the numbers and pregnancy-associated ratios for the major causes of natural death. White women had a slightly higher likelihood of dying from cancers than Black women. All other causes of death were more prevalent among Black women with cardiac disorders accounting for the majority of the mortality burden. The greatest disparity in distribution by cause of death was for exacerbation of chronic conditions. These conditions included asthma, seizure disorders, and diabetes.

	Black		White		Ratio of Black to White Women
	Number	Ratio	Number	Ratio	
Cancer	10	3.4	34	3.7	0.9
Cardiac Disorders	53	18.2	42	4.6	3.9
Disorders of the Central Nervous System	8	2.7	14	1.5	1.8
Exacerbation of Chronic Condition	14	4.8	6	0.6	8.0
Hemorrhage	10	3.4	7	0.8	4.2
Infection	14	4.8	17	1.8	2.7
Preeclampsia/Eclampsia	7	2.4	8	0.9	2.7
Pulmonary Embolism	15	5.1	12	1.3	3.9

Figure 2 shows the disparity between Black women and White women in deaths due to natural causes is present at each age group as well. The greatest disparity is found among women 30-35 years old, with Black women dying at 5.4 times the rate of White women. This finding of 83.6 Black women between the age of 30 and 34 dying for every 100,000 live births indicates that Black women should be considered at high risk for morbidity and/or mortality before the age of 35 which is commonly identified as “advanced maternal age” and as a high risk period subject to more intensive care.

Figure 2. Ratio of Natural Pregnancy-Associated Deaths to Live Births among Black Women and White Women by Age in Virginia, 1999-2011



This report confirms the presence and persistence across thirteen years of a gap between White women and Black women in their chance of dying within one year of pregnancy in Virginia. Black women are found to die disproportionately from homicide but most women, both Black and White, die from natural causes during or within one year of pregnancy. Examination of the ratio of deaths/100,000 live births reveals that Black women are three times more likely to die from natural causes than White women. Cardiac disorders, pulmonary embolisms, exacerbation of chronic conditions, and infections contribute to the greatest numbers of death among Black women. Cancers were more prevalent among White women than Black women.

The findings presented here support the need for increased efforts to improve women’s health prior to pregnancy with regard to risk factors for heart disease and

pulmonary embolism and to improve care for women with chronic diseases. Black women may require earlier and more intensive care during their pregnancies.

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