

Pregnancy-related Causes of Maternal Mortality Across Sociodemographic Characteristics in the State of Georgia, 2016-2019

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BACKGROUND

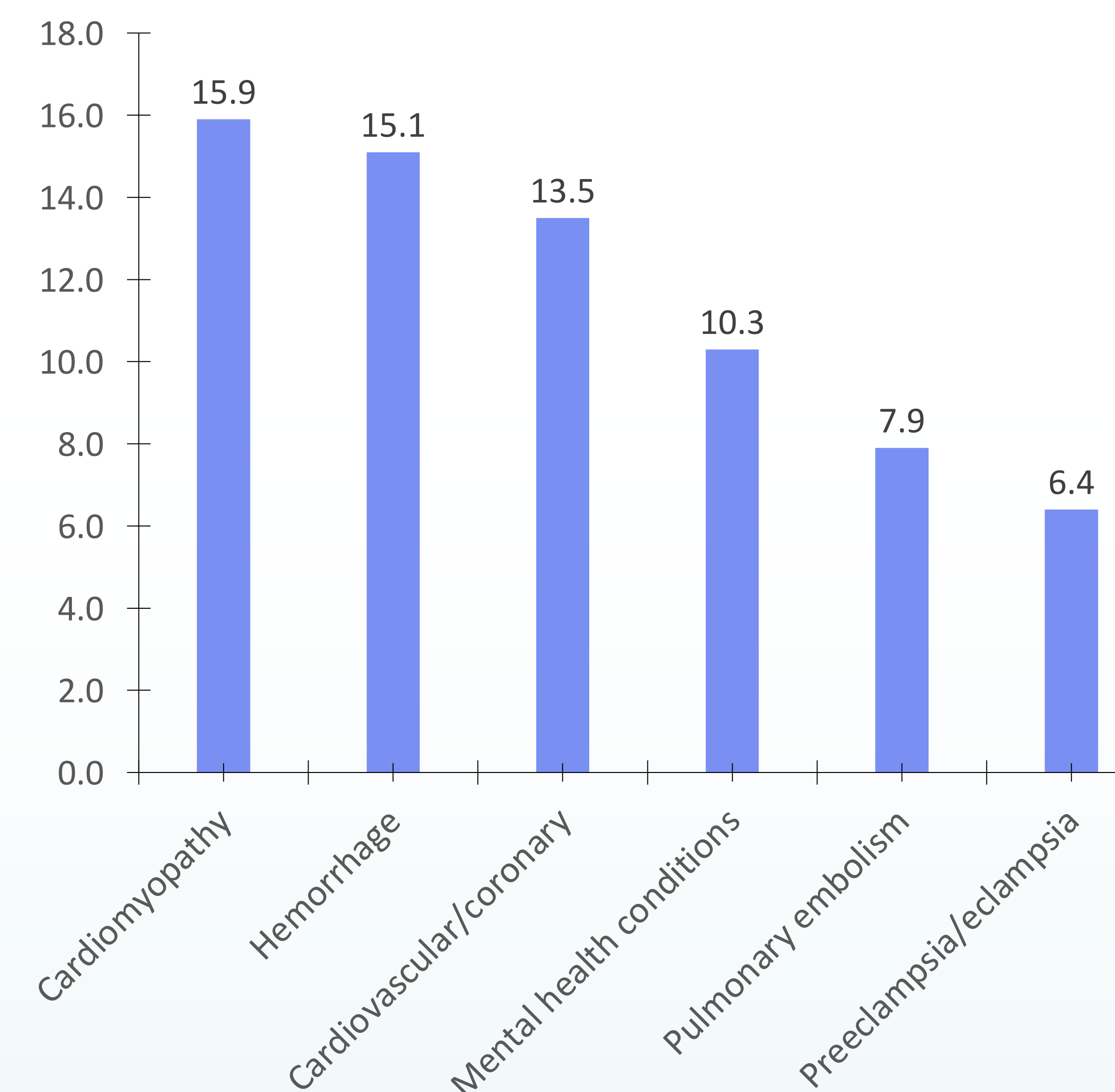
- Maternal mortality has been rising in the United States over the past 2-3 decades. The Southeastern United States is a geographic “hotspot” for maternal mortality
- The State of Georgia has the second highest maternal mortality rate among all states with 46.2 maternal deaths per 100,000 live births
- Among 108 counties (representing 2 million residents) designated as rural, access to health services for women may be a challenge
- The aim of this study was to estimate and report the prevalence of pregnancy-related and maternal deaths in the State of Georgia across sociodemographic characteristics

METHODS

- Maternal mortality data (N=349) collected between 2016 and 2019 were obtained from the Georgia Department of Public Health (DPH)
- Pregnancy-related deaths are maternal deaths caused directly or indirectly by a pregnancy complication or within 1 year of pregnancy
- The prevalence of the leading causes of pregnancy-related deaths was calculated
- The association between sociodemographic characteristics and the six leading causes of pregnancy-related deaths was examined using the Chi-square test or Fisher exact test
- The significance level was set to $\alpha=0.05$.
- SAS version 9.4 was used in all analyses

RESULTS

Figure 1. Percentage of the six leading pregnancy-related causes of maternal death, Georgia, 2016-2019



RESULTS

- There were 37% (n=129) pregnancy-related deaths between 2016 and 2019
- The leading causes were: cardiomyopathy, hemorrhage, cardiovascular/coronary, mental health conditions, pulmonary embolism, and preeclampsia/eclampsia
- Cardiomyopathy was the leading cause (15.9%), especially in urban counties
- Hemorrhage was the second leading cause (15.1%), particularly among non-Hispanic White, non-Hispanic Black, Hispanic, and women of other race/ethnicity
- The prevalence of mental health conditions was high (10.3%), especially in non-Hispanic White women
- There are disparities in pregnancy-related deaths throughout the State of Georgia
- Improving access to prenatal care services in rural and urban areas may help to lower rates of deaths

Table 1. Association between maternal characteristics and leading causes of pregnancy-related deaths

Characteristics	Cardiomyopathy		Cardiovascular/Coronary		Hemorrhage		Pulmonary embolism		Mental health conditions		Preeclampsia/eclampsia	
	n (%)	P-value	n (%)	P-value	n (%)	P-value	n (%)	P-value	n (%)	P-value	n (%)	P-value
County of residence		0.0095		0.6125		0.7464		0.8519		0.4617		0.6323
Rural	8 (40.0)		1 (5.6)		4 (21.0)		2 (20.0)		1 (7.7)		2 (25.0)	
Urban	12 (60.0)		17 (94.4)		15 (79.0)		8 (80.0)		12 (92.3)		6 (75.0)	
Age (years)		0.3646		0.6459		0.8425		0.6343		0.3622		0.7346
<20	1 (5.0)		0 (0.0)		1 (5.3)		0 (0.0)		1 (7.7)		0 (0.0)	
20-35	10 (50.0)		13 (72.2)		11 (57.9)		8 (80.0)		10 (76.9)		5 (62.5)	
35+	9 (45.0)		5 (27.8)		7 (36.8)		2 (20.0)		2 (15.4)		3 (37.5)	
Race/ethnicity		0.3325		0.6147		0.0227		0.6489		<.0001		0.5156
Non-Hispanic White	5 (25.0)		4 (22.2)		7 (36.8)		3 (30.0)		10 (76.9)		1 (12.5)	
Non-Hispanic Black	15 (75.0)		13 (72.2)		7 (36.8)		7 (70.0)		0 (0.0)		7 (87.5)	
Hispanic	0 (0.0)		0 (0.0)		1 (5.3)		0 (0.0)		2 (15.4)		0 (0.0)	
Other race/ethnicity ¹	0 (0.0)		1 (5.6)		4 (21.0)		0 (0.0)		1 (7.7)		0 (0.0)	
Education		0.1880		0.6125		0.9010		0.3288		0.8333		0.7268
High school or less	6 (30.0)		9 (50.0)		8 (42.1)		6 (60.0)		6 (46.2)		4 (50.0)	
Some college or higher	14 (70.0)		9 (50.0)		11 (57.9)		4 (40.0)		7 (53.8)		4 (50.0)	

¹Other race/ethnicity: non-Hispanic Asian, non-Hispanic American Indian Alaska Native, non-Hispanic Native Hawaiian or other Pacific Islander, mixed race