

Black women of childbearing age more likely to have high blood pressure, raising pregnancy risks

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Black women of childbearing age were twice as likely to have uncontrolled high blood pressure when compared with their white peers,

increasing their risk of heart-related complications during pregnancy, according to new research published today in the *Journal of the American Heart Association*.

The analysis of nearly 18-years of data found that [food insecurity](#), or the lack of access to healthy foods, was experienced by one in four Black and one in three Hispanic women.

High blood pressure is common, affecting 17.6% of women of childbearing age in the United States and has increased in the past decade, according to the 2019 National Center for Health Statistics. Undetected and uncontrolled high blood pressure may lead to stroke or heart attack, as well as preeclampsia and eclampsia—potentially fatal conditions in which blood pressure spikes during pregnancy.

The study by Massachusetts researchers examined [social factors](#) influencing blood pressure control by race and ethnicity among U.S. women of childbearing age with high blood pressure.

"Although high blood pressure is a treatable, common chronic health condition, it is a leading cause of pregnancy-related deaths and severe disease," said senior study author Lara C. Kovell, M.D., a cardiologist at the University of Massachusetts Chan Medical School in Worcester, Massachusetts. "The United States has much higher rates of pregnancy-related deaths than economically similar countries, and Black women are disproportionately affected."

Previous research has indicated that Black, Hispanic and Asian women face a higher risk of complications and stroke during childbirth, and Black and Hispanic women who develop pregnancy-induced high blood pressure are at least six times more likely to die than [white women](#).

"A better understanding of racial and ethnic differences in hypertension

control may help advance health equity in the United States," the authors wrote.

In this study, researchers reviewed data from the National Health and Nutrition Examination Survey from 2001 to 2018, which included 1,293 women of child-bearing age, average age 36 years, who had a diagnosis of hypertension with a blood pressure above 140/90 mm Hg or a self-reported history of antihypertensive medication use. About 59% of the participants were white women, 23% were Black women, about 16% were Hispanic women and 1.7% were Asian women. About 20% of the participants had never been pregnant.

Uncontrolled high blood pressure was defined as a systolic blood pressure of 140 mm Hg or higher (the top number in a blood pressure reading) and a diastolic blood pressure of 90 mm Hg or higher (the bottom number). Three consecutive blood pressure measurements were taken after five minutes of seated rest, with one minute in between measures, and the average was calculated. Women answered questions about their lifestyle, such as diet, exercise, smoking and alcohol intake, and also access to [health care](#), education and blood pressure medication use.

Social determinants of [health factors](#) examined in this study were based on the American Heart Association's Scientific Statement on Social Determinants of Risk and Outcomes for Cardiovascular Disease. These included education, income, food security, home ownership, language and access to health insurance and medical care.

"Food insecurity is important when thinking about high blood pressure since sodium levels are higher in many lower-cost food options such as canned, ultra-processed and fast foods," Kovell said. "Moreover, food insecurity and a lack of access to healthy foods have been shown in other studies to increase the risk of high blood pressure."

Among the researchers' findings:

- Black women of childbearing age with high blood pressure were more than twice as likely to have uncontrolled high blood pressure than white women, and among those who were aware of their diagnosis, Black women were three times more likely to have uncontrolled blood pressure.
- The risk factors for high blood pressure persisted among Black women after considering social determinants of health.
- Black and Asian women had a higher average blood pressure and were more likely to have uncontrolled high blood pressure than white women; 38% and 36%, respectively, versus 25%.
- Food insecurity was higher among Hispanic and Black women compared with white women, 32% and 25%, respectively, versus 13% among white women.
- Asian women were more often unaware of their [high blood pressure](#) and were more likely to have uncontrolled blood pressure compared with white women.
- 1 in 4 Black women and one in three Hispanic women reported food insecurity.

"We were surprised by the high prevalence of food insecurity among Black and Hispanic women. We were not expecting to see such a dramatic inequity in this social determinant of health," said lead author Claire Meyerovitz, B.A. "While our population of Asian women was small, we were also surprised to find that 26% of Asian women of childbearing age were unaware of their hypertension, which was significantly more than white women at 14%."

Researchers say more study is needed, including examination of structural racism and discrimination, to better understand why Black women of childbearing age face challenges in both food security and heart health.

"Questions about food insecurity and health care access should be included in the standard screening questions at hospital or clinic visits, especially among pregnant women or women planning to become pregnant," Kovell said. "We still have a lot of work to do to understand and reverse the disparities in maternal mortality between white and Black women in the U.S."

Authors noted that the study is limited by the fact that the interplay of race, racism, the U.S. health care system and social inequity is complex and unique to this country. The analysis was limited to results of the NHANES questionnaire and did not include information about other social determinants of health such as neighborhood safety, food deserts, rural versus urban living and experiences related to racism.

More information: Lara C. Kovell et al, Social determinants, blood pressure control, and racial inequities in childbearing age women with hypertension, 2001 to 2018, *Journal of the American Heart Association* (2023). [DOI: 10.1161/JAHA.122.027169](https://doi.org/10.1161/JAHA.122.027169)

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