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NEWS RELEASES

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Cardiovascular-related deaths in the U.S. fall, but disparities remain

Findings support personalized public health interventions to help close gaps.

Research supported by the National Institutes of Health shows that cardiovascular-related deaths have declined over the past two decades, but disparities remain. Researchers found that inequities are mostly driven by differences in race and ethnicity, geographic location, and access to care, among other factors. The findings were published in *Circulation*, and the research was partially funded by the National Heart, Lung, and Blood Institute (NHLBI), part of NIH.

In [one paper](#), researchers analyzed data from the Centers for Disease Control and Prevention and found that, after adjusting for age, rates of cardiovascular disease-linked deaths dropped among Black and white adults between 1999 and 2019, as did heart disease-related disparities between the two groups. However, Black adults continue to experience higher death rates than white adults, especially in rural or segregated areas, according to the researchers.

“The persistent disparities observed in our study likely reflect the fact that Black adults disproportionately experience social, economic, and environmental barriers to optimal health due to systemic inequities and structural racism,” said Rishi K. Wadhera, M.D., a section head of Health Policy and Equity at the Smith Center for Outcomes Research at Beth Israel Deaconess Medical Center and an assistant professor of medicine at Harvard Medical School, Boston.

Wadhera and the researchers found these disparities were most pronounced among younger Black adults. Lack of access to quality maternal health care and mass incarceration could help explain that trend, they wrote. Importantly, what has helped mitigate those effects, they said, are initiatives in Black communities that expand access to cardiovascular disease risk screenings, prevention, and care – for example, [blood pressure screenings at barbershops](#).

In a [second paper](#), researchers with the [Multi-Ethnic Study of Atherosclerosis \(MESA\)](#) described similar associations after partnering with 6,814 U.S. adults. During 15 years of follow-up, Black adults had a 34% greater risk for overall death compared to white adults. The researchers found that common social determinants of health – such as the socioeconomic status of a person’s neighborhood, access to health care, income, and education – served as independent predictors for death.

After adjusting for those factors, such as comparing adults with similar household income and financial resources, education, and access to health care, the relative excess risk of death in Black adults fell by about half, to 16%. Similar reductions were noted among Hispanic and Asian Americans compared to white adults.

The study also considered other factors associated with overall and cardiovascular deaths among Black, white, Hispanic, and Asian Americans, including social, lifestyle, and clinical risk factors. After factoring in these variables, Hispanic and Asian Americans had the lowest risk for overall death, which was partially reversed after accounting for immigration history. In this case, less time living in the United States had a slightly protective effect – which may be due to better baseline health of participants or having less time to adapt to an American lifestyle.

About one in five MESA participants (1,552) died during the 15-year period. Cardiovascular-related events accounted for one-fourth of these deaths, and this proportion was highest in Asian Americans (27.6%), followed by Black (25.4%), Hispanic (25%), and white (20.1%) adults.

“In addition to assessing traditional risk factors for heart disease, such as diabetes, family history, blood pressure, cholesterol, and smoking, this research shows the importance of identifying and accounting for social determinants of health when calculating risk,” said Wendy S. Post, M.D., M.S., a study author and director of cardiovascular research at Johns Hopkins University School of Medicine, Baltimore. “More importantly, we must identify systemic factors in our society that can be altered to improve these longstanding inequities.

A third paper describes an increase in heat-related cardiovascular deaths among U.S. adults during the summer months of 2008-2017.

Using data from the CDC, the authors found older adults, men, and Black adults were most likely to experience cardiovascular-related deaths due to an increase in temperatures where the heat index rose to at least 90 degrees. They also discussed potential solutions to help reverse these outcomes, such as increasing access to shade or cooling centers in communities.

“Multiple factors can independently and synergistically influence cardiovascular health,” said Nicole Redmond, M.D., Ph.D., M.P.H., chief of the [Clinical Applications and Prevention Branch](#) in NHLBI’s Division of Cardiovascular Sciences. “Further study of the intersection of environmental, social, behavioral, and clinical risk factors and potential interventions are needed to mitigate these risks and close the equity gap.”

To learn more about heart health, visit <https://www.nhlbi.nih.gov/health/heart-healthy-living>.

To learn more about health disparities, visit <https://www.nhlbi.nih.gov/science/health-disparities-and-inequities>.

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