The link between structural racism, high blood pressure and Black people's health

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High blood pressure. Structural racism. What do they have in common?

Researchers say they are two of the biggest factors responsible for the gap in poor heart and brain health between Black and white adults in the United States. And they are inextricably linked.

Studies show high blood pressure, also called hypertension, affects Black adults—particularly women—earlier and more dramatically than their white peers. By age 55, research shows 3 of 4 Black adults have already developed the condition compared to about half of white men and 40% of white women.

Untreated, high blood pressure can lead to a range of disabling and potentially fatal chronic illnesses, including heart disease, stroke, dementia, kidney disease, sexual dysfunction and loss of vision.

Behind these elevated risks, researchers say, are a complex web of negative influences stemming from the multigenerational impacts of structural racism.

Chandra Jackson, a research investigator and epidemiologist with the National Institute of Environmental Health Sciences, considers structural racism as the "totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, wages, benefits, credit, media, health care and criminal justice.

"These patterns and practices in turn reinforce discriminatory beliefs, values and the maldistribution of health-promoting or harming resources," she said. That is, they create the physical and social environments that make it easier for white families to grow up healthy and harder for Black families to do so.

For example, decades of discriminatory lending, called redlining, have kept Black families segregated in neighborhoods with fewer resources

and greater chronic exposure to environmental hazards, such as unclean drinking water and noise and air pollution, Jackson said.

These neighborhoods also tend to lack quality health care facilities and providers, grocery stores that sell healthy and affordable foods, or open spaces where adults can exercise and children can play, she said. Discriminatory employment and educational systems result in higher levels of poverty that create financial strain, housing and food insecurity, strained relationships and less access to good health insurance.

All of this—along with the daily indignities of racial discrimination—increases stress. That, in turn, may be associated with increased blood pressure, said Augustine Kang, an investigator at Brown University School of Public Health in Rhode Island. "All these factors set up the perfect storm for disease."

Overall, Black men and women report higher levels of stress than their white counterparts. But studies show Black women, who experience the compounding effects of both race and gender discrimination, along with the chronic stress of having to "work harder" to overcome this dual bias, pay a particularly high price with their health starting early in life. Black women have a shorter life expectancy than white women, in part due to higher rates of heart disease.

Stress also makes it harder to manage heart and brain health risk factors such as high blood pressure once they take hold.

Kang led a study that found Black women with high blood pressure who experienced high levels of stress were substantially less likely to take medication or practice blood pressure-lowering behaviors such as exercising or eating a healthy diet.

"Lifestyle factors are incredibly important in managing blood pressure,"

he said. "There are social and environmental factors that present an added barrier to diet and physical activity, which accounts for a lot of the health disparities we see today."

Overcoming these barriers has proven challenging—but not always insurmountable.

For example, a program targeting high blood pressure at Kaiser Permanente in California eliminated differences in control among Black and white adults. The program used electronic health records to track blood pressure, increased doctor-patient messaging outside of office visits and lowered the price of blood pressure medication to make it more affordable and accessible.

"In well-organized health systems, we're doing a better job of monitoring and controlling blood pressure," said Dr. John Ayanian, director of the Institute for Healthcare Policy and Innovation at the University of Michigan in Ann Arbor. "But the U.S. has a fragmented health care system."

Ayanian led a study showing disparities in blood pressure among Black and white Medicare Advantage enrollees persisted in every region across the nation except in the West, where the Kaiser health plans had eliminated those differences. His research also showed Black adults were disproportionately enrolled in lower-performing health plans nationwide.

"We cannot rely just on the efforts of individuals and doctors," he said. "You need a well-functioning health care delivery system."

Asking people to improve their diet when they don't have access to healthy foods, to exercise when they don't have access to safe or affordable spaces, to take blood pressure medications when they can't afford them—while also failing to ensure access to quality universal

health care—will never succeed in eliminating health inequities, said Dr. Monika Safford, founder and co-director of the Cornell Center for Health Equity in New York City. She also is chief of general internal medicine at Weill Cornell Medical College.

"We can't leave it up to individuals. It's not their fault. The system is set up to fail them. … The system is not fair, equal and equitable."