

Some racial/ethnic groups have greater chance of developing high blood pressure

February 12 2018

People who are African-American, American Indian/native Alaskan, Asian, or native Hawaiian and other Pacific Islanders have a significantly greater chance of developing hypertension than people who are white or Hispanic who are in the same weight category or live in neighborhoods with similar education levels.

The Kaiser Permanente study, which included more than 4 million people across the United States, was published today in the *Journal of Clinical Hypertension*.

"This research shines new light on how pervasive the racial/ethnic disparities are in hypertension, and that the prevalence of hypertension among American Indians, native Hawaiians and Asians is nearly as high as that of African-Americans," said the study's lead author, Deborah Rohm Young, PhD, of the Kaiser Permanente Southern California Department of Research & Evaluation.

"Results from this study may provide information that could lead to better targeting of interventions to reduce hypertension, not only by race/ethnicity but possibly by weight category or social economic status."

Hypertension is one of the most important modifiable risk factors for cardiovascular disease and stroke, and racial and ethnic disparities in hypertension have been well documented. This research adds to our understanding of how weight and social economic status—as measured by neighborhood education level—are associated with the prevalence of

hypertension among non-white racial and ethnic groups, compared to whites.

The goal of this study was to examine the prevalence of hypertension in a large ethnically and regionally diverse cohort of overweight and obese adults to determine whether prevalence of hypertension varied by [body mass index](#) and neighborhood education categories. Researchers analyzed the electronic health records of 4,060,585 overweight or obese adults from the Patient Outcomes Research to Advance Learning network, which includes Kaiser Permanente patients in California, Colorado, the District of Columbia, Georgia, Hawaii, Maryland, Oregon, Virginia and Washington; HealthPartners patients in Minnesota and Wisconsin; and Denver Health patients in Colorado.

Approximately half of the patients were white, about 25 percent were Hispanic, 13 percent were Asian, 11 percent were African-American, 1.5 percent were native Hawaiian/other Pacific Islander, and 0.6 percent were American Indian/native Alaskan.

Researchers found that among this group of overweight or [obese adults](#), 36.9 percent had a diagnosis of hypertension.

The age-standardized prevalence of hypertension was:

- 46.0 percent among African-Americans
- 44.7 percent among Native Hawaiians and other Pacific Islanders
- 40.4 percent among Asians
- 37.3 percent among American Indian/native Alaskans
- 34.9 percent among whites
- 34.3 percent among Hispanics

The differences in hypertension prevalence between whites and other race/ethnicities did not substantially differ by neighborhood education

level.

Patients were categorized as overweight or obese class 1, 2 or 3, based on body mass index (or BMI), which is weight divided by height squared. For example, a 5-foot, 4-inch person who weighed 155 pounds was in the overweight category, and at 210 pounds was in the obese class 2 category.

Researchers found that hypertension prevalence was 5 to 10 percent higher at each successive increase in overweight or obese weight category for all races and ethnicities.

"We see from the results of this research that maintaining a lower weight remains a key factor in preventing hypertension regardless of race and ethnicity," said Michael A. Horberg, MD, executive director of Research and Community Benefit and Medicaid for the Mid-Atlantic Permanente Medical Group and the executive director of the Mid-Atlantic Permanente Research Institute.

"But other factors are also at work, and more research needs to be conducted to discover the many factors that may contribute to [hypertension](#) prevalence across racial/ethnic groups."

Provided by Kaiser Permanente

Citation: Some racial/ethnic groups have greater chance of developing high blood pressure (2018, February 12) retrieved 30 March 2023 from <https://medicalxpress.com/news/2018-02-raciaethnic-groups-greater-chance-high.html>

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