

Dietary patterns may explain differing CVD rates among Hispanic/Latino groups in US

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Dietary patterns may help explain different rates of heart disease and stroke among various Hispanic/Latino populations in the U.S., according to preliminary research to be presented at the American Heart



Association's Epidemiology, Prevention, Lifestyle & Cardiometabolic Health Conference 2022. The meeting will be held in-person in Chicago and virtually Tuesday, March 1—Friday, March 4, 2022, and offers the latest in population-based science related to the promotion of cardiovascular health and the prevention of heart disease and stroke.

"Despite commonly being aggregated as one ethnic group, the U.S. Hispanic/Latino population is composed of multiple, diverse cultural communities from numerous countries with distinct <u>dietary patterns</u>. Understanding each group's particular dietary habits and the potential to affect health have considerable public health relevance," said Yi-Yun Chen, M.D., M.Sc., lead author of the study and a resident at Jacobi Medical Center at the Albert Einstein College of Medicine in the Bronx, New York.

Several healthy eating patterns are recommended by the Dietary Guidelines for Americans from the U.S. Department of Health and Human Services for the prevention of cardiovascular disease (CVD). The current study measures adherence to three of these healthy eating patterns and its relationship to CVD risk: the Alternative Mediterranean Diet, an eating plan that emphasizes consumption of fruits, vegetables, olive oil, beans, nuts, whole grains and seeds; the Healthy Eating Index, which assesses the extent to which a person's diet aligns with the 2015-2020 Dietary Guidelines for Americans; and the healthful Plantbased Diet Index, which assesses consumption of healthy plant food, unhealthy plant food and animal food.

The study included 10,766 adults (average age of 46 years; 63.4% female) participating in the Hispanic Community Health Study/Study of Latinos. The Hispanic Community Health Study is a population-based study of adults, ages 18-74 years, living in 4 urban centers in the U.S. – the Bronx of New York City, Chicago, Miami and San Diego—that recruited participants of Cuban, Dominican, Mexican, Puerto Rican,



Central American and South American descent. All participants were free of cancer and cardiovascular disease when they enrolled in the study.

All participants completed two 24-hour dietary recall questionnaires, one conducted during in-person visits at initial enrollment in the study and the second recall conducted by phone approximately 30 days later, to detail which foods and how much of each type of food they had eaten in the previous 24-hour period. These were used to derive scores on dietary quality measures by comparing them to the three healthy eating plans from the Dietary Guidelines for Americans: the Alternative Mediterranean Diet, the Healthy Eating Index and the Plant-based Diet Index.

"These diets share several similar components, such as higher consumption of whole grains, vegetables, fruits, nuts and legumes," Chen said. "Higher dietary scores for each of the three diets represent better individual healthy eating patterns."

For each eating pattern, the investigators analyzed the risks of heart attack or stroke during an average 6-year follow-up period. Results were adjusted for demographic and socioeconomic variables.

The analysis found:

- During the average 6-year follow-up period, 248 participants (2.3%) had a heart attack or stroke.
- The average adherence to each of the three dietary quality measures were significantly different across the six Hispanic/Latino background groups, with the healthiest diets found among Mexican adults, followed by people from the Dominican Republic, South America, Central America, Cuba and Puerto Rico.



- Comparing those in the top third of adherence to each diet with those in the lowest third, the risk of heart attack/stroke was reduced 46% for those who more closely followed the alternative Mediterranean Diet, 36% for those scoring high on the Healthy Eating Index dietary pattern and 44% for those who scored higher on following the Plant-based Diet Index.
- When evaluated separately, the relationship between diet quality and heart attack/stroke risk was similar across all six Hispanic/Latino groups.

"Our research demonstrates that higher scores in any of the three hearthealthy dietary patterns is associated with lower cardiovascular risk, suggesting that it may not be necessary to conform to one specific dietary pattern to achieve better cardiovascular health. Thus, people may have more choices for healthy diets," Chen said.

Study participants who were born outside the U.S. had significantly better adherence to the heart-healthy diets compared to participants born in the U.S., driven mainly by greater intake of healthy, plant-based foods such as whole grains, fruits, vegetables, legumes and nuts.

"Compared to Hispanic/Latino adults who immigrated to the U.S., we found that those who were born in the U.S. consumed more Americanstyle foods, as expected. This reflects the influence of acculturation on dietary patterns, particularly towards a less healthy, western dietary pattern. Since greater adherence to all three healthy dietary patterns was associated with a lower risk of cardiovascular disease, we suggest that increasing the consumption of healthy, plant-based foods may help the younger generation achieve better cardiovascular health similar to their relatives who were born outside the U.S.," Chen said.

The study includes several limitations, including the participants' selfreported 24-hour dietary report at the study baseline, which may be



subject to errors in memory and may not have captured food types eaten less frequently. Because the average follow-up time of 6 years was relatively short, there were only a small number of participants diagnosed with cardiovascular disease, which may have limited the ability to detect significant associations between diet and heart disease risk in individual subgroups. These results from a study of Hispanic and Latino adults in 4 urban areas may not be generalizable to Hispanic/Latino people living in other communities throughout the U.S. and its territories.

More information: Conference:

professional.heart.org/en/meetings/epi-lifestyle

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