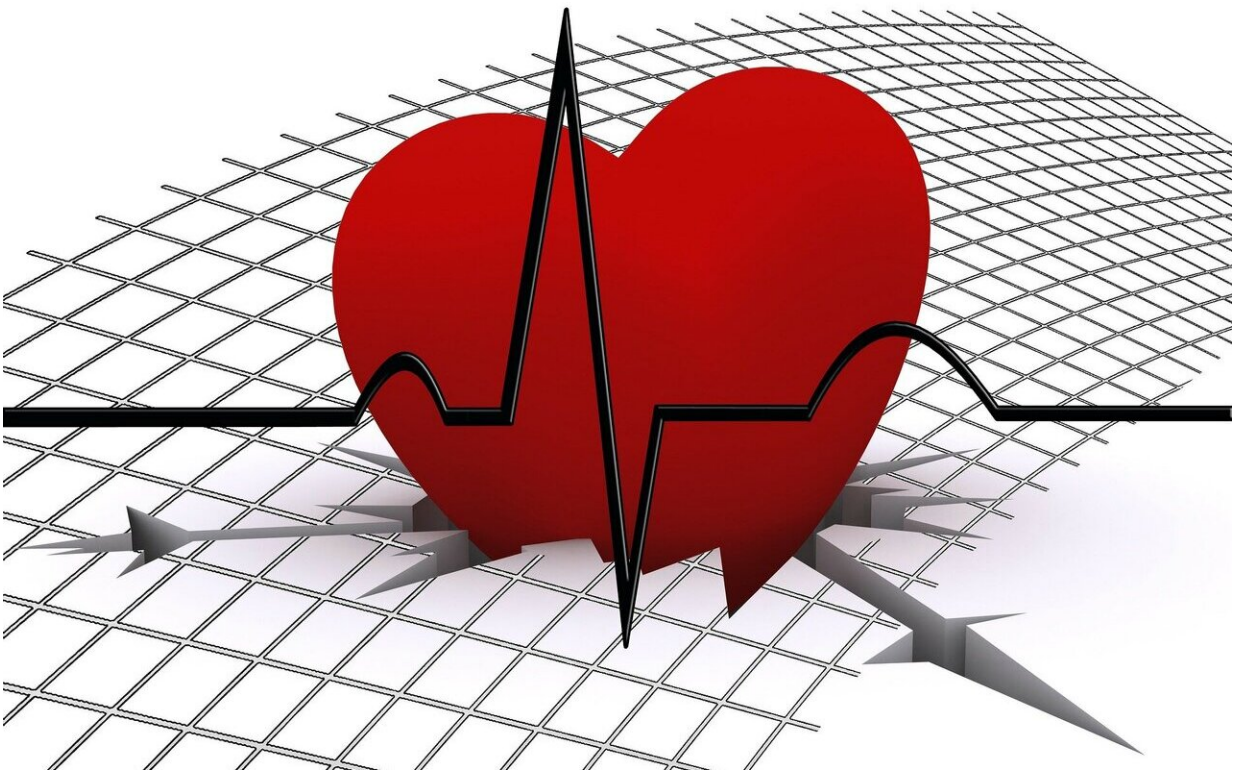


New U.S. population study projects steep rise in cardiovascular diseases by 2060

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By the year 2060, projected rates of cardiovascular risk factors and disease will increase significantly in the United States, according to a study published today in the *Journal of the American College of*

Cardiology. Substantial increases in cardiovascular trends may contribute to a rising burden on the U.S. health care system and highlight the need for equitable access to prevention education and treatments now to prevent future disease.

The researchers used data from the 2020 U.S. Census Bureau report for the years 2025 to 2060, and combined these census counts with the prevalence of cardiovascular risk factors or disease based on the U.S. National Health and Nutrition Examination Survey. From these estimates, the investigators evaluated projected cardiovascular risk factors and diseases in groups based on sex (male and female), age (18-44 years; 45-64; 67-79; >80) and race and ethnicity (Asian, Black, Hispanic, White and other). The researchers analyzed projected rates for the following cardiovascular risk factors: diabetes, hypertension, dyslipidemia, obesity; and the following cardiovascular diseases: ischemic heart disease, heart failure, heart attack and stroke.

Among the general U.S. population, all four CV risk factors are expected to increase from 2025 to 2060, with the largest percentage increase in diabetes (39.3% increase to 55 million persons), followed by dyslipidemia (27.6% to 126 million), hypertension (25.1% to 162 million) and obesity (18.3% to 126 million). The researchers found that stroke (33.8% to 15 million) and heart failure (33.4% to 13 million) were the highest projected increases in rates of cardiovascular diseases, followed by [ischemic heart disease](#) (30.7% to 29 million) and heart attack (16.9% to 16 million).

Projections for CV risk factors or diseases from 2025 to 2060 are expected to stabilize for males versus females (apart from obesity, where women are projected to continue to have higher prevalence) as well as across age. However, all projections for race and ethnicity minority groups exponentially rose, while projections for white persons gradually decreased. The Black population is expected to experience the highest

CV risk factor burden among all race and ethnicity increases. In addition, CVD rate increases are projected to have the highest impact on the Black and Hispanic populations.

"Our analysis projects that that the prevalence of [cardiovascular risk factors](#) and diseases will continue to rise with worrisome trends," said James L. Januzzi Jr., MD, cardiologist at Massachusetts General Hospital, Cardiology Division, Hutter Family Professor of Medicine at Harvard Medical School, Trustee of the ACC, and senior author of the study. "These striking projections will disproportionately affect racial and ethnic minority populations in the U.S. Understanding these results will hopefully inform future public health policy efforts and allow us to implement prevention and treatment measures in an equitable manner."

The researchers recommend emphasizing education regarding CV risk factors, improving access to quality health care and facilitating lower-cost access to effective treatment therapies to stem the rising tide of CVD in at-risk individuals. In addition, health policy will need to be developed to improve health care access to historically neglected populations, implement customized preventive strategies and dismantle broader systems leaving racial and ethnic minorities with inferior care.

"Ultimately, as prevention is imperative to tackle the future burden of [cardiovascular disease](#), the results from this study pose an important challenge," said Reza Mohebi, MD, the Dennis and Marilyn Barry Fellow in Cardiology at Massachusetts General Hospital and lead author of the study. "In order to reduce the burden of cardiovascular disease in the U.S. population, health care policymakers will need to allocate preventive measures and health care resources to the more vulnerable populations we projected to have higher percentage rise in disease."

"Despite that several assumptions underlie these projections, the importance of this work cannot be overestimated," said Andreas

Kalogeropoulos, MD, MPH, Ph.D., clinical and outcomes researcher at Stony Brook University Medical Center and author of the accompanying editorial comment. "The absolute numbers are staggering and suggest that by year 2060, compared to 2025, the numbers of people, particularly minorities, with CV risk factors are expected to increase dramatically. Unless targeted action is taken, disparities in the burden of cardiovascular disease are only going to be exacerbated over time."

The study has several limitations, including the conventional method of generating predictions for future CV [disease](#) by assuming future patterns of CV risk factors. The study authors did not factor in COVID-19 to the estimates or potential long-term impacts of COVID-19 on the cardiovascular system. Lastly, CVDs were defined based on self-report.

More information: Reza Mohebi et al, Cardiovascular Disease Projections in the United States Based on the 2020 Census Estimates, *Journal of the American College of Cardiology* (2022). [DOI: 10.1016/j.jacc.2022.05.033](#)

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