

# Fatal heart disease has plummeted since 1990, but progress has stalled

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After decades of decline, fatal coronary heart disease may rise again unless Americans modify three major risk factors: smoking, drinking, and obesity.

A Rutgers study published in *American Heart Journal* has found that deaths from coronary [heart](#) disease among people ages 25 to 84 dropped to 236,953 in 2019 from 397,623 in 1990, even though Americans' median age has increased to 38 from 33 over the last three decades.

Between 1990 and 2019, the US age-standardized coronary heart disease mortality rate per 100,000 fell from 210.5 to 66.8 for females (4% decline per year) and from 442.4 to 156.7 for males (3.7% decline per year). However, the decline has slowed significantly since 2011. Those born after 1980 were actually at slightly increased risk of dying from coronary heart disease at any age than people from the previous generation.

The findings echo those from the same team's investigation of stroke-related deaths in the US.

Rutgers researchers noted that while future advances in treatment continue reducing fatal heart disease, complementary lifestyle modifications may play an important role. They estimated that the elimination of smoking, drinking, and obesity would have prevented half of the deaths observed during the study period.

"The overall numbers are good. We saw a substantial decline in deaths from all types of coronary heart disease for both females and males," said Cande Ananth, chief of the Division of Epidemiology and Biostatistics in the Department of Obstetrics, Gynecology, and Reproductive Sciences at Rutgers Robert Wood Johnson Medical School, and lead author of the study. "However, because we examined how these three modifiable risk factors affected [mortality rates](#), we can see that there is room for considerable improvement."

Tobacco usage is already headed in the right direction: The percentage of Americans who smoked tobacco fell to 14% in 2019 from 26% in

1990. Obesity rates, on the other hand, rose sharply during the study period to 43% in 2019 from 12% in 1990. Alcohol usage rose slightly during the study period.

In addition to the reduction in smoking, other factors driving the decline in coronary heart disease mortality included statins (which lower cholesterol), better [diagnostic tests](#), and more frequent use of those tests.

"Although [myocardial infarctions](#) happen without warning, the other two major types of [coronary heart disease](#)—chronic ischemic heart disease and atherosclerotic heart disease—can be diagnosed and treated years before they damage the heart muscles," said Ananth, whose analyses of past trends aspire to improve future care.

To achieve this, Ananth's research team analyzes the largest possible datasets to differentiate risk among various patient subsets. The new study used anonymized data from the National Center for Health Statistics to track all heart disease fatalities in the targeted age range for the three-decade period.

"The ultimate goal is to help inform standards of care and public health priorities by determining which patients face the highest level of risk for cardiovascular events," Ananth said. "Although increased screening and population-wide interventions are possible, the returns are likely to be minimal, at best, while costs will be prohibitively high. We need to maximize returns from our [limited resources](#) by identifying high-risk subsets of patients and targeting intervention to them."

The team's next study will analyze cardiovascular disease risk among pregnant patients.

**More information:** Cande V. Ananth et al, Epidemiologic trends and risk factors associated with the decline in mortality from coronary heart

disease in the United States, 1990-2019, *American Heart Journal* (2023).  
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