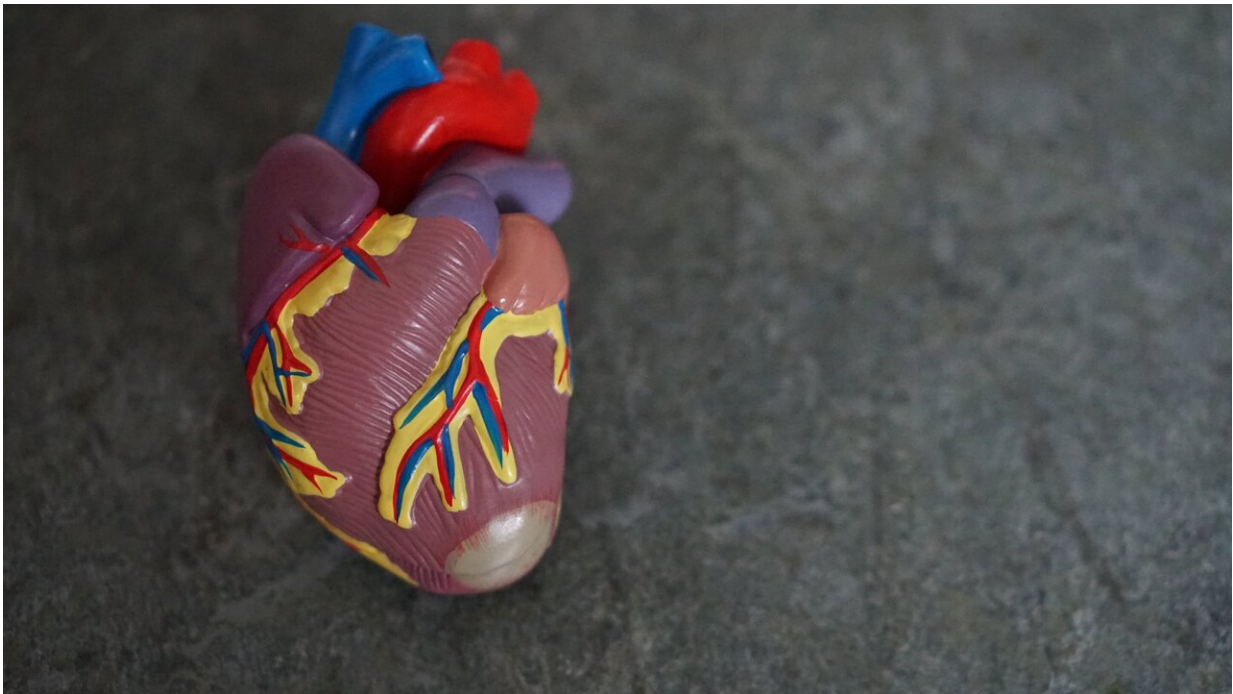


Study highlights potential targets for heart failure prevention

November 3 2020, by Elisabeth Reitman



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The prevalence of heart failure in the United States is a growing concern. A new study led by a Yale physician analyzes the variations in how often heart failure occurs in patients with risk factors such as hypertension, diabetes, obesity, atrial fibrillation, and a previous heart attack.

Heart failure is common among [older adults](#) with coronary artery disease, high blood pressure, and other lifestyle risk factors. Most patients with [heart failure](#) hospitalized each year are Medicare beneficiaries. In the last decade the rate of first-time hospitalizations for heart failure has seen a decline—yet these changes haven't been consistent, and the burden of heart failure remains high.

In a nationwide observational study of 1,799,027 adults over the age of 65, researchers identified patients with no prior occurrences of cardiovascular disease. The authors measured the onset of five common risk factors for heart failure: hypertension, myocardial infarction (MI) or heart attack, diabetes, atrial fibrillation, and obesity.

Over the 6-year period from 2011 to 2016, 249,832 participants were diagnosed with heart failure. The researchers noted a gradual increase per year in all five risk factors over time. However, the number of heart failure cases per 1,000 Medicare beneficiaries declined in patients who developed hypertension, diabetes, and obesity when compared with patients without these comorbidities.

After accounting for differences in other risk factors, the incidence of heart failure in patients with a heart attack rose 26 percent compared to those without a history of the condition. Likewise, Medicare beneficiaries with atrial fibrillation showed a 22 percent increase in developing heart failure, suggesting that targeted prevention strategies among these patient groups could reduce heart failure-related morbidity and mortality.

Previous studies in *Circulation: Heart Failure* and *JAMA Internal Medicine* have been consistent with the overall trends in heart failure. "The reduced incidence of heart failure among patients with hypertension, diabetes, and obesity may suggest a more optimal management of these [risk factors](#), but the slower decline among those

following a [heart attack](#) and [atrial fibrillation](#) warrants further investigation," said lead author Rohan Khera, MD, MS, an assistant professor in the Section of Cardiovascular Medicine and investigator at the Center for Outcomes Research and Evaluation.

Khera said the observations are preliminary and hypothesis generating.

As the survival rate and life expectancy has increased for patients after MI, 45 percent develop heart failure by the age of 95, according to research in *Circulation*. The authors concluded that additional studies are needed to determine if evidence-guided practices can reduce the burden of heart failure in the U.S.

More information: Rohan Khera et al. Temporal Trends in Heart Failure Incidence Among Medicare Beneficiaries Across Risk Factor Strata, 2011 to 2016, *JAMA Network Open* (2020). [DOI: 10.1001/jamanetworkopen.2020.22190](#)

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Provided by Yale University

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