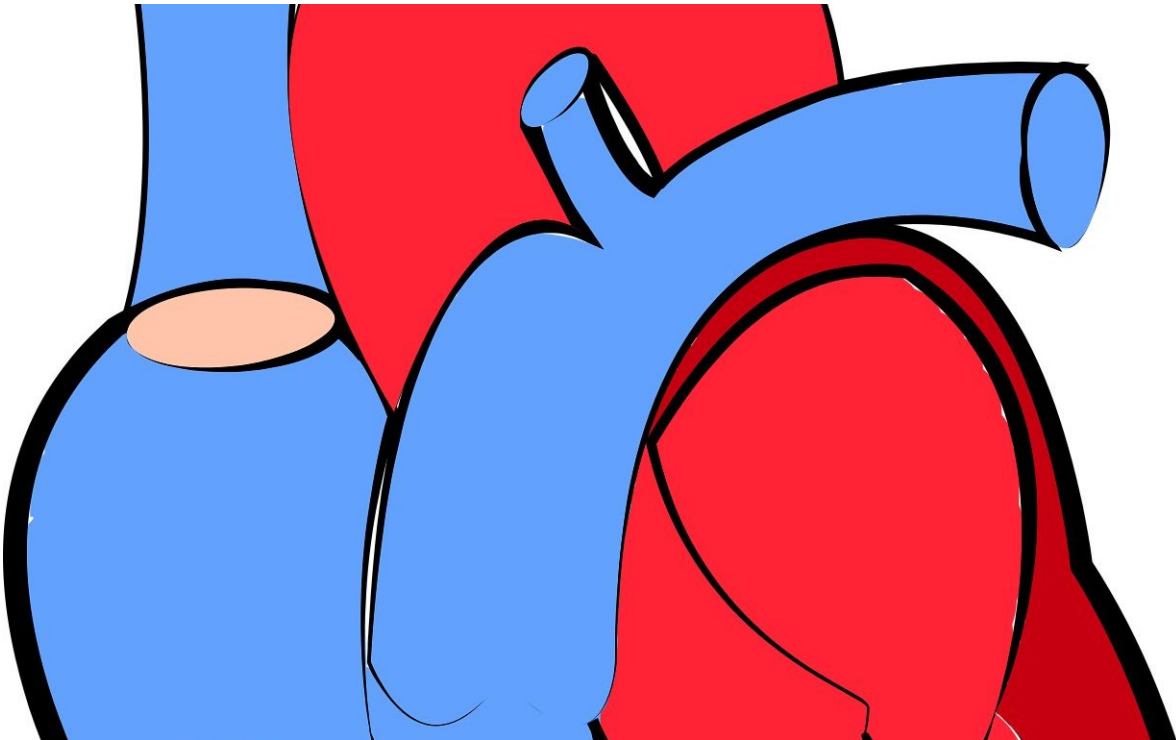


Place of residence linked to heart failure risk

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Location. Location. Location.

When buying and selling real estate, the phrase is a realtor's mantra.

It is also the central theme of a recently released journal report on factors that can predict heart [failure](#) risk.

According to new research in the American Heart Association journal, *Circulation: Cardiovascular Quality and Outcomes*, almost 5 percent of heart failure risk was connected to neighborhood factors.

"What we have now found is evidence suggesting that characteristics of your place of residence play a significant role in influencing heart failure risks above and beyond an individual's cardiovascular risk factors and socioeconomic indicators of individual income and educational level," said Loren Lipworth, Sc.D., research associate professor of Medicine at Vanderbilt University Medical Center and co-senior author of the paper. "Prior evidence has shown that a person's socioeconomic information is a predictor for chronic disease.

"What our findings imply is that there is an opportunity for possible interventions that center on the community related to availability of resources like exercise outlets, [healthy food choices](#) and medical facilities."

The study compared census tract data on socioeconomic deprivation - a collection of neighborhood-level variables of wealth, education, occupation and housing patterns - and heart failure rates among 27,078 middle-aged participants from Southeastern states. The participants were from the Southern Community Cohort Study, an ongoing prospective investigation of cancer and other chronic conditions in a largely resource-limited, underinsured group living in 12 Southeastern states.

More than 50 percent of the participants lived in the most deprived neighborhoods. Seventy percent earned less than \$15,000 annually; nearly 39 percent had less than a high-school education and 44 percent were obese.

During a median of five years of follow-up in the study, 4,300 participants were diagnosed with heart failure.

"The local environment in which we live matters to our health," said Deepak Gupta, MD, assistant professor of Medicine at Vanderbilt and co-senior author. "The surprise in our results was the magnitude to which neighborhood characteristics account for the risk of heart failure."

Gupta, a cardiologist, said individualized treatment to reduce traditional risk factors like hypertension, diabetes and obesity may not be enough to prevent heart failure and hopes fellow cardiologists will appreciate the breadth of what influences a patient's health.

"Hopefully our findings will motivate some current and future physicians to expand our roles in healthcare delivery and advocacy to opportunities outside of standard clinic and hospital-based practice," said Gupta.

The researchers hope the findings raise awareness among prevention and [public policy](#) advocates to consider the role of environment and community health resources in the evaluation of health risks.

"Public policy professionals need to pay attention to the neighborhood, not just the individuals, because your place of residence does predict your risk of [heart](#) failure," said Elvis Akwo, MD, PhD, first author of the study and a research fellow at the Medical Center. "Improved community-level resources may ultimately reduce the risk of [heart failure](#) in these communities.

"These are merely suggestions on what could have some impact. We hope that our study will open the door for experimental studies for interventions and what kinds of measures can be tested to improve the cardiovascular health of entire communities, not just one person at a time."

More information: *Circulation: Cardiovascular Quality and Outcomes*

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