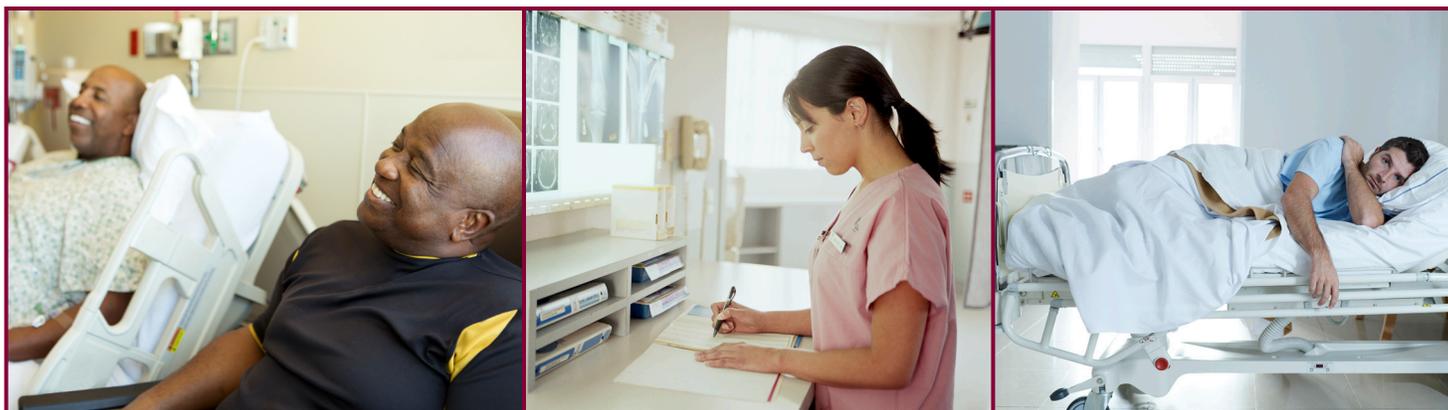


Science-in-Brief, June 2017: Prevalence of Cardiovascular Risk Factors and Strokes in Younger Adults

The following is a synopsis of “Prevalence of Cardiovascular Risk Factors and Strokes in Younger Adults,” published in June 2017 in *JAMA Neurology*.



What is already known on this topic?

The most common risk factors for stroke among adults between 15 and 44 include smoking, diabetes, and hypertension. Over the past decade, the rate of smoking in this age group has fallen, but rates of other major risk factors have increased. Although stroke went from being the third leading cause of death in the United States in 2007 to the fifth leading cause of death in 2013, acute stroke hospitalization rates have increased among younger adults.

What is added by this article?

The authors sought to understand the relationship between the patterns of key risk factors and the rise in acute stroke hospitalization rates. Using data from the National Inpatient Sample (NIS), a publicly available database of hospital inpatient information from 44 states, researchers examined hospitalization rates by stroke type and the prevalence of associated risk factors among various age groups. The analysis included data on hospitalizations for acute ischemic stroke, subarachnoid hemorrhage, and intracerebral hemorrhage from 2003–2004 and 2011–2012. Trends in hypertension, lipid disorders, diabetes, tobacco use, obesity, atrial fibrillation, and ischemic heart disease were also included. The results were grouped by various demographic aspects, including age, sex, and race.

Acute Ischemic Stroke

The authors found that acute ischemic stroke hospitalization rates increased from 2003–2004 to 2011–2012 in all demographic groups except in non-Hispanic black individuals and in all other racial groups between ages 18 and 34. The prevalence of risk factors increased for all age groups and in both sexes for those hospitalized for an acute ischemic stroke. Significant increases in hypertension, lipid disorders, tobacco use, and obesity were seen in men ages 18 to 34; smaller increases were seen among women in the same age range.

Subarachnoid Hemorrhages

Unlike rates for acute ischemic stroke hospitalization, rates for subarachnoid hemorrhage hospitalizations decreased for all age groups between 2003–2004 and 2011–2012. Interestingly, although men ages 18 to 35 were hospitalized three times more often than women, women ages 45 to 54 and 55 to 65 had significantly higher hospitalization rates for subarachnoid hemorrhage. More men and women had multiple risk factors in 2011–2012 than in 2003–2004.

Intracerebral Hemorrhage

The prevalence of intracerebral hemorrhage hospitalizations did not change much; however, men were hospitalized significantly more often than women for all age groups. Increasing prevalence of multiple risk factors was seen among both sexes and among all age groups for people hospitalized for intracerebral hemorrhage.

What are the implications of these findings?

From 1995–1996 to 2011–2012, hospitalization rates due to stroke continued to increase, as did the prevalence of associated risk factors. People with hypertension and current smokers are more likely to experience subarachnoid hemorrhage. The increase in these risk factors and the concurrent decline in hospitalizations calls for more examination. The rise in intracerebral hemorrhages is a particular concern, as they can result in multiple diseases and death. These trends show that many of these strokes could be prevented with basic lifestyle modifications. Public health practitioners, health care providers, and policy decision makers should work toward creating opportunities for healthy lifestyles to prevent strokes at an early age.

Resources

Centers for Disease Control and Prevention Stroke
<https://www.cdc.gov/stroke/>

Million Hearts®
Risks for Heart Disease & Stroke
<https://millionhearts.hhs.gov/learn-prevent/risks.html>

American Stroke Association
<http://www.strokeassociation.org/STROKEORG/>

Citation

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.