NEWS RELEASE
FOR IMMEDIATE RELEASE

Contact:
Angela J. Beck, PhD, MPH
Managing Editor
Tel: 734-764-8775
ajpmmedia@elsevier.com

Secondhand Smoke Increases Stroke Risk by 30 Percent for Nonsmokers
More Evidence of Harm, According to New Study in the
American Journal of Preventive Medicine

Ann Arbor, MI, July 8, 2015 – Nearly 800,000 people in the U.S. suffer a stroke each year. Stroke is responsible for one out of every 19 deaths in the U.S. and it is a leading cause of disability. A new study published in the American Journal of Preventive Medicine found that secondhand smoke (SHS) increases the risk of stroke by about 30 percent for nonsmokers.

Using data from the Reasons for Geographic and Racial Differences in Stroke (REGARDS) study, a national, population-based, longitudinal study investigating cardiovascular disease events and mortality endpoints among white (55 percent) and African American (45 percent) adults aged greater than 45 years, investigators found that even after adjustment for other stroke factors such as hypertension, diabetes, and heart disease, the 30 percent risk for nonsmokers remained.

The current study included almost 22,000 participants (38 percent African American, 45 percent male) with 23 percent reporting SHS exposure in the past year. During the period of April 2003 to March 2012, 428 strokes were reported. A further analysis of the type of stroke (ischemic vs. hemorrhagic) was performed and showed that most strokes were due to blockage of blood flow to the brain (352 ischemic, 50 hemorrhagic, and 26 strokes of unknown subtype).

The literature concerning adverse health effects of SHS is becoming clearer, although not all studies have replicated the association between SHS exposure and stroke. According to lead author Angela M. Malek, PhD, of the Department of Public Health Sciences, Medical University of South Carolina, Charleston, “Previous studies suffer from limitations in that few were prospective, adjustment for potential confounders has varied, stroke and SHS exposure have not been consistently defined, measurement and sources of SHS exposure have differed, stroke subtypes have not always been assessed, and some studies have been underpowered due to small sample size.”

The strengths of the current study result from the use of a population-based sample of a large, prospectively followed, well-characterized group of people that includes a large proportion of African Americans and physician-adjudicated incident strokes.

“Our findings suggest the possibility for adverse health outcomes such as stroke among nonsmokers exposed to SHS and add to the body of evidence supporting stricter smoking regulations. Future research
will need to investigate the role of cardiovascular disease risk factors in the association and explore potential exposure to additional environmental variables, such as ambient air pollutants, in relation to stroke.” explained Dr. Malek.

### NOTES FOR EDITORS
“Secondhand Smoke Exposure and Stroke: The Reasons for Geographic and Racial Differences in Stroke (REGARDS) Study,” by Angela M. Malek, PhD, Mary Cushman, MD, Daniel T. Lackland, DrPH, George Howard, DrPH, and Leslie A. McClure, PhD. It is published online in the *American Journal of Preventive Medicine*, ahead of Volume 49, Issue 6 (December 2015), DOI: [http://dx doi.org/10.1016/j.amepre.2015.04.014](http://dx doi.org/10.1016/j.amepre.2015.04.014).

Full text of this article is available to credentialed journalists upon request; contact Angela J. Beck at 734-764-8775 or [ajpmmedia@elsevier.com](mailto:ajpmmedia@elsevier.com). Journalists wishing to interview study author Daniel T. Lackland, DrPH, should contact Heather Woolwine of the MUSC Office of Public Relations at 843-792-7669 or [woolwinh@musc.edu](mailto:woolwinh@musc.edu).

This study was supported by the National Institute of Neurological Disorders and Stroke.

**ABOUT THE AMERICAN JOURNAL OF PREVENTIVE MEDICINE**
The *American Journal of Preventive Medicine* (www.ajpmonline.org) is the official journal of The American College of Preventive Medicine (www.acpm.org) and the Association for Prevention Teaching and Research (http://www.aptrweb.org/). It publishes articles in the areas of prevention research, teaching, practice and policy. Original research is published on interventions aimed at the prevention of chronic and acute disease and the promotion of individual and community health. The journal features papers that address the primary and secondary prevention of important clinical, behavioral and public health issues such as injury and violence, infectious disease, women's health, smoking, sedentary behaviors and physical activity, nutrition, diabetes, obesity, and alcohol and drug abuse. Papers also address educational initiatives aimed at improving the ability of health professionals to provide effective clinical prevention and public health services. The journal also publishes official policy statements from the two co-sponsoring organizations, health services research pertinent to prevention and public health, review articles, media reviews, and editorials.

The *American Journal of Preventive Medicine*, with an Impact Factor of 4.527, is ranked 12th in Public, Environmental, and Occupational Health titles and 10th in General & Internal Medicine titles for total number of citations according to the 2014 Journal Citation Reports® published by Thomson Reuters, 2015.

**ABOUT ELSEVIER**
Elsevier (www.elsevier.com) is a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals, empowering them to make better decisions, deliver better care, and sometimes make groundbreaking discoveries that advance the boundaries of knowledge and human progress. Elsevier provides web-based, digital solutions — among them ScienceDirect (www.sciencedirect.com), Scopus (www.scopus.com), Elsevier Research Intelligence (www.elsevier.com/research-intelligence), and ClinicalKey (www.clinicalkey.com) — and publishes over 2,500 journals, including *The Lancet* (www.thelancet.com) and *Cell* (www.cell.com), and more than 33,000 book titles, including a number of iconic reference works. Elsevier is part of RELX Group plc (www.relxgroup.com), a world-leading provider of information solutions for professional customers across industries. www.elsevier.com