

Stroke more prevalent in United States than in Europe

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American adults have a higher prevalence of stroke than their European counterparts, due in part to a higher rate of stroke risk factors among Americans and barriers to care in the United States, according to a study presented at the American Stroke Association's International Stroke Conference 2008.

Compared to European men, U.S. men had 61 percent higher odds of having a stroke and U.S. women had almost twice the odds of stroke as European women.

“Most of this gap is among relatively poor Americans who were, in our data, much more likely to have a stroke than poor Europeans, whereas the gap in stroke prevalence is less marked between rich Americans and rich Europeans,” said Mauricio Avendano, Ph.D., author of the study.

The study is based on 2004 data from the U.S. Health and Retirement Survey (HRS); the Survey of Health, Aging and Retirement in Europe (SHARE); and the English Longitudinal study of Aging (ELSA). These surveys include biennial interviews among people age 50 years and older.

“The strength of these surveys is that the questionnaires were explicitly designed to be fully comparable across all countries, and the samples were drawn to be representative of the entire population in each country,” said Avendano, a research fellow in public health at the Erasmus Medical Center in Rotterdam, The Netherlands

“The limitation is that we’re dealing with self-reports of a doctor’s diagnosis of stroke, not the diagnostic data itself.”

Researchers studied data on 13,667 people in the United States and 30,120 individuals in 11 European countries. The analysis included stroke occurrence, socioeconomic status, and major risk factors for stroke including obesity, diabetes, smoking, physical activity and alcohol consumption, which can differ largely across countries.

Overall, women were about one-quarter less likely to have a stroke, on average, than men.

“Many risk factors for stroke, including blood pressure and smoking, have generally increased among women but remained stable among men,” Avendano said. “This may explain why the gap in stroke prevalence between men and women is less marked than before. In fact, in some age groups and populations such as France, women may have higher prevalence of stroke than men.”

The age-adjusted prevalence rate of stroke varied considerably across countries. It was highest in the United States and lowest in the southern Mediterranean European countries of Spain, Italy and Greece, as well as Switzerland.

The higher prevalence of stroke in the United States and the lower stroke prevalence in Mediterranean populations may be due in part to cross-country differences in risk factors and to barriers to care in the United States.

“Southern Mediterranean countries have a diet rich in vegetables, fruits and fish and lower in fats, which partly explains why heart disease is so much lower in these populations than in northern Europe and the United States,” Avendano said.

“However, for stroke, the picture is more complicated. For instance, although Italy has relatively low stroke prevalence, former studies indicate that Italians have a similar or higher stroke incidence rate than people in other European countries or the United States. Thus, the results on prevalence may also reflect poor stroke survival in Italy, which will result in a lower prevalence of stroke.”

“Prevalence” is an estimate of the total number of cases of a disease existing in a population during a specified period. While “incidence” is an estimate of the number of new cases of a disease that develop in a population, usually in a 1-year period.

Higher stroke prevalence was associated with lower socioeconomic status as measured by wealth, income and education, but these associations were stronger in the United States than in most European countries.

“Beyond the contribution of specific risk factors, policies that differ dramatically between Europe and the United States may play a role,” Avendano said. This includes healthcare access, which is universal in Europe but not in the United States, and “the preventive orientation of some European systems aimed at tackling stroke risk factors, as opposed to the U.S. healthcare system, which focuses more on treatment and may actually be more successful in keeping stroke cases alive.”

Furthermore, policies related to nutrition and transportation for example may make Americans more prone to less physical activity and less healthy diets than their counterparts in many European countries, he said.

Source: American Heart Association

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