



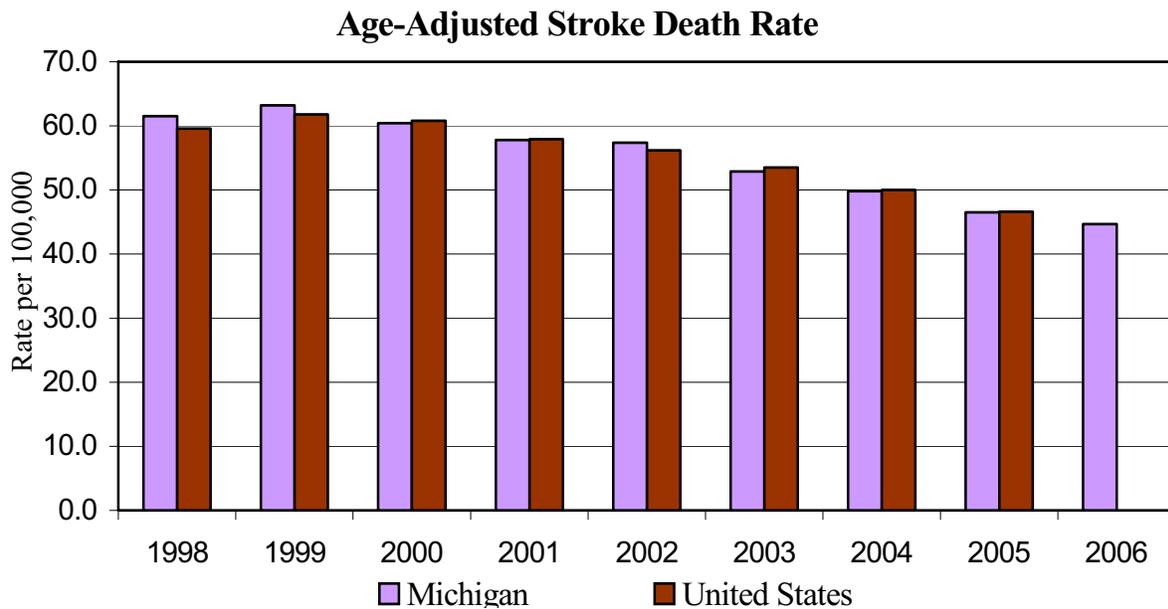
Topic: Cardiovascular Disease

10. Stroke Deaths

A blood vessel hemorrhage or blockage in the brain causes a stroke. High blood pressure is the most important risk factor for a stroke, with other risk factors being cigarette smoking, physical inactivity, high cholesterol, and obesity.

Stroke is not just a disease of the elderly. In 2006, stroke was the tenth leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75 in Michigan. Beyond the death statistics, stroke is a major cause of disability in Michigan. Stroke-related disability can have very high financial costs and major physical and mental consequences. However, prompt recognition of the signs and symptoms of stroke, rapid and appropriate health care, can reduce the negative effects of stroke remarkably.

How are we doing?



In 2006 there were 4,746 deaths in Michigan due to stroke (the third leading cause of death). While high, this was the lowest number of deaths due to stroke in the last decade. The rate per 100,000 dropped from 61.5 in 1998 to 44.4 in 2006, a decrease of 27.8%. These lower death rates are associated with healthier behaviors, especially smoking cessation and high blood pressure control and with improvements in the care of stroke patients.

How does Michigan compare with the U.S.?

The stroke death rate in Michigan is similar to that of the United States. A national ranking of states in 2009 found Michigan ranked 22nd worst among states for stroke death rates using 2005 data.



How are different populations affected?

In 2006, rates for males were 45.6 per 100,000 and for females 43.2 per 100,000. Stroke rates also reflect the health status disparity for minorities. The death rate for Blacks is 58.9 per 100,000, compared to Whites who have a death rate of 42.3 per 100,000.

What is the Department of Community Health doing to improve this indicator?

The Michigan Department of Community Health convened a partnership of broad-based groups called the *Michigan Stroke Initiative (MSI)* whose mission is to describe and monitor the stroke burden, to provide guidelines for strategies to raise awareness, to prevent strokes, and to improve stroke care throughout Michigan. Since its inception, MSI has been instrumental in monitoring the burden of stroke, supporting stroke education, sharing best practices by networking with colleagues. MSI has collaborated on several projects, including the *Great Lakes Regional Stroke Network* whose mission is to “optimize collaboration and coordination among Great Lakes States to reduce the burden of stroke and disparities.” MDCH, MSI and 21 Michigan hospitals collaborate on a stroke registry and quality improvement program funded by CDC referred to as the “National Paul Coverdell Registry.” This project will expand to 40 hospitals in 2009 with continued focus on quality improvement in stroke care for patients.

MDCH is working with the EMS and Trauma System Section on assessing EMS heart attack and stroke care in Michigan. The assessment will identify gaps and barriers in care so improvement strategies can be developed. One strategy is to increase the understanding of EMS personnel. Educational tools are being distributed to 1,000 EMS providers, educational programs for EMS instructors are being offered, and a pilot project is being launched to test the effectiveness of new tools to improve EMS stroke care. Discussions are being held to identify a policy agenda for EMS regionalization.

A statewide survey of stroke rehabilitation centers was conducted to understand the range of services and therapies being offered to Michigan stroke patients. Results were compared with other states in the region and gaps in care are being addressed. A media campaign focusing on signs and symptoms of stroke and the need to call 9-1-1 was offered in collaboration with the American Heart Association. MDCH staff with partner organizations continue to promote print material such as “Taking on Stroke” to educate the public and patients on signs and symptoms of stroke and emergency action. For more information see the website www.michigan.gov/cvh or www.michiganstrokeinitiative.org.