

# BRFSS Fact Sheet

# Symptoms of Heart Attack and Stroke



Tennessee  
Department of Health

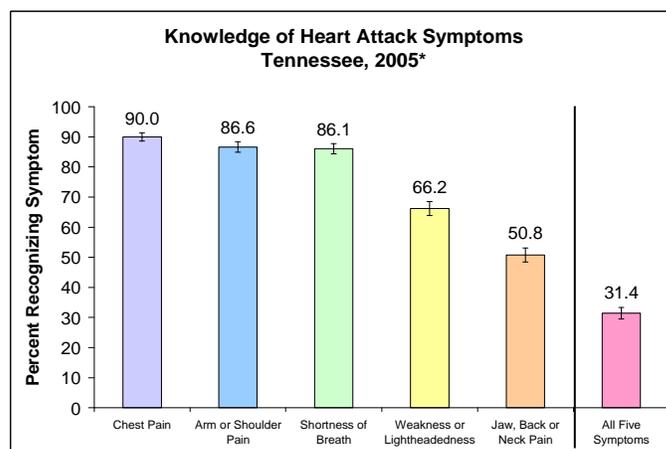
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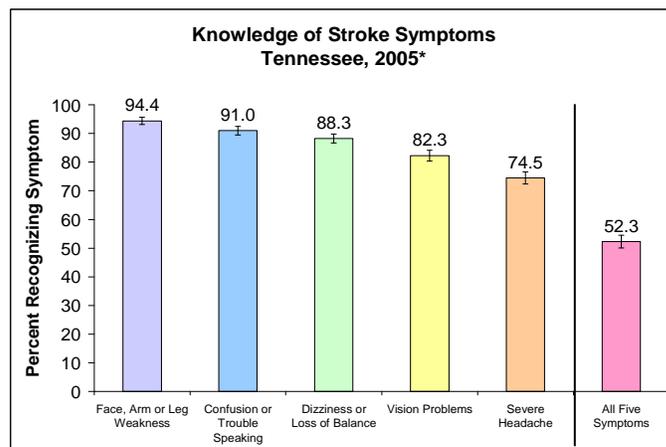
Approximately 480,000 people experience a fatal heart attack in the United States each year, and more than half of these deaths occur outside of a hospital, within one hour of symptom onset.<sup>1,2</sup> Similarly, nearly half of the approximately 160,000 fatal strokes that occur each year happen before patients are transported to the hospital.<sup>2,3</sup> Effective treatments for heart attack and stroke do exist. For example, clot-busting drugs can stop some heart attacks and strokes in progress. But to be effective, these drugs must be given relatively quickly after heart attack or stroke symptoms first appear.<sup>4</sup> By recognizing the symptoms of heart attack and stroke and by calling 911 immediately, death and disability due to these diseases can be reduced.

- In 2005, 90.0% of adult Tennesseans correctly identified chest pain as a symptom of heart attack. A high percentage of people also correctly identified arm/shoulder pain (86.6%) and shortness of breath (86.1%). However, only 50.8% of people recognized jaw, neck or back pain as a symptom of heart attack.
- Numbness or weakness of the face, arm or leg was the most readily identified symptom of stroke (94.4%). Each of the other four warnings signs of stroke was correctly identified by at least three-quarters of adults.

- More people could correctly identify all five symptoms of stroke (52.3%) than could identify all five symptoms of heart attack (31.4%). Only 24.4% ( $\pm 1.8$ )\* of adult Tennesseans could correctly identify all ten heart attack and stroke symptoms (listed on next page).



- 88.9% ( $\pm 1.4$ ) of respondents correctly identified calling 911 as the first thing to do when you suspect someone is having a heart attack or stroke. 21.5% ( $\pm 1.6$ ) could identify all ten heart attack and stroke warning signs and recognize 911 as the most appropriate first response option.



#### References:

1. U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
2. American Heart Association. *Heart Disease and Stroke Statistics – 2006 Update*. Dallas, TX: AHA; 2006
3. CDC. *Awareness of Stroke Warning Signs – 17 States and the U.S. Virgin Islands, 2001*. MMWR 2004;53
4. American Heart Assoc. ([www.americanheart.org](http://www.americanheart.org))

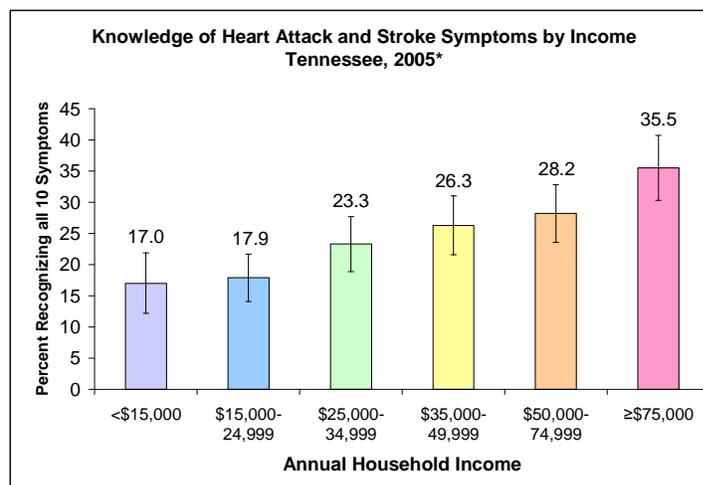
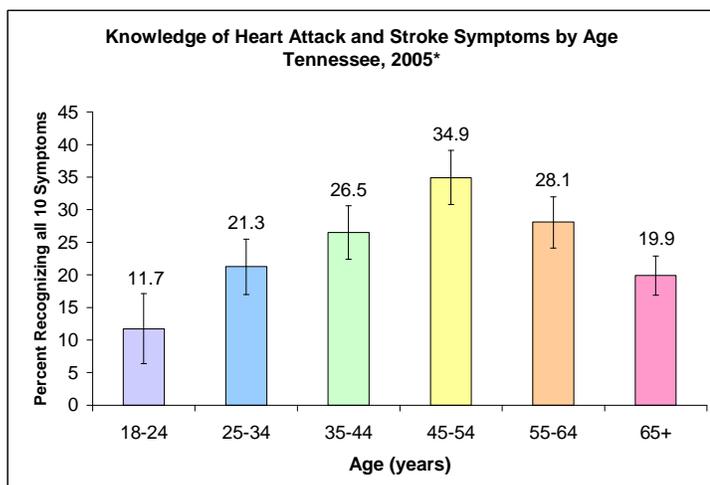
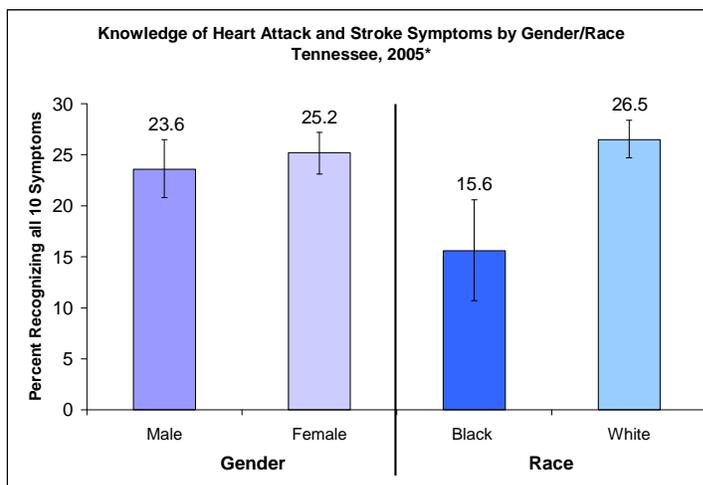
Prepared by the Tennessee Department of Health; Office of Policy, Planning and Assessment; Surveillance, Epidemiology and Evaluation section based on 2005 TN Behavioral Risk Factor Surveillance System data.

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- The percentage of adults recognizing all ten symptoms of heart attack and stroke was similar for males (23.6%) and for females (25.2%).
- Whites (26.5%) were more likely than blacks (15.6%) to correctly identify all ten symptoms.
- Persons aged 18-24 years old (11.7%) were *least* likely and those aged 45-54 (34.9%) were *most* likely to identify all ten symptoms. Only 19.9% of those 65 years and older could identify all ten warning signs of heart attack and stroke, even though cardiovascular disease is the number one cause of death in this age group.
- The percentage of adults that could recognize all ten symptoms increased with increasing education levels: less than high school 13.3% ( $\pm 3.9$ ), high school graduate or GED 18.4% ( $\pm 2.7$ ), some post-high school 27.2% ( $\pm 3.5$ ) and college graduate 34.4% ( $\pm 3.7$ ).
- The percentage of persons that correctly identified all ten warning signs of heart attack and stroke increased with increasing income.

Heart Attack Warning Signs <sup>4</sup>	
1.	Chest discomfort that can feel like uncomfortable pressure, squeezing, fullness or pain
2.	Pain or discomfort in one or both arms or shoulders
3.	Pain or discomfort in the jaw, neck, back or stomach
4.	Shortness of breath
5.	Weakness, nausea or lightheadedness
Stroke Warning Signs <sup>4</sup>	
1.	Numbness or weakness of the face, arm or leg, especially on one side of the body
2.	Confusion, trouble speaking or understanding
3.	Trouble walking, dizziness, loss of balance or coordination
4.	Trouble seeing in one or both eyes
5.	Severe headache with no known cause



\*The number above each column indicates the percent value for that column. Error bars represent 95% confidence intervals, as do ranges for percentages given in the text.