

Fact Sheet: Recognition of Major Symptoms of Heart Attack and Stroke Among Arkansans

Introduction:

Coronary heart disease is the leading cause of death in Arkansas. Stroke is the third leading cause of death and serious disability in Arkansas. In 2003, 27.8 percent of all deaths in Arkansas were due to heart disease and 7.6 percent were due to stroke. Reducing deaths due to heart disease and stroke requires knowing the warning signs and knowing how to respond quickly and properly if warning signs occur¹.

Methods:

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based telephone survey of adults aged 18 years and over. It was developed to collect and monitor information on personal risk behaviors that affect health. In 2001, 2,928 adults participated in the Arkansas BRFSS survey. Respondents were asked about their knowledge of the signs and symptoms of a heart attack and stroke. For each question, the answer choices were 'yes', 'no', 'not sure', or 'don't know'.

Symptoms included for heart attack:

- Pain or discomfort in the jaw, neck or back
- Feeling weak, lightheaded, or faint
- Chest pain or discomfort
- Sudden trouble seeing in one or both eyes*
- Pain or discomfort in the arms or shoulder
- Shortness of breath

Symptoms included for stroke:

- Sudden confusion or trouble speaking
- Sudden numbness or weakness of face, arm, or leg, especially on one side
- Sudden trouble seeing in one or both eyes
- Sudden chest pain or discomfort*
- Sudden trouble walking, dizziness, or loss of balance
- Severe headache with no known cause

Additionally, respondents were also asked, "If you thought someone was having a heart attack or a stroke, what is the first thing you would do?" Respondents chose from a list of choices that included the following:

- Take them to the hospital
- Tell them to call their doctor
- Call 911
- Call their spouse or a family member
- Do something else
- Don't know/not sure
- Refused

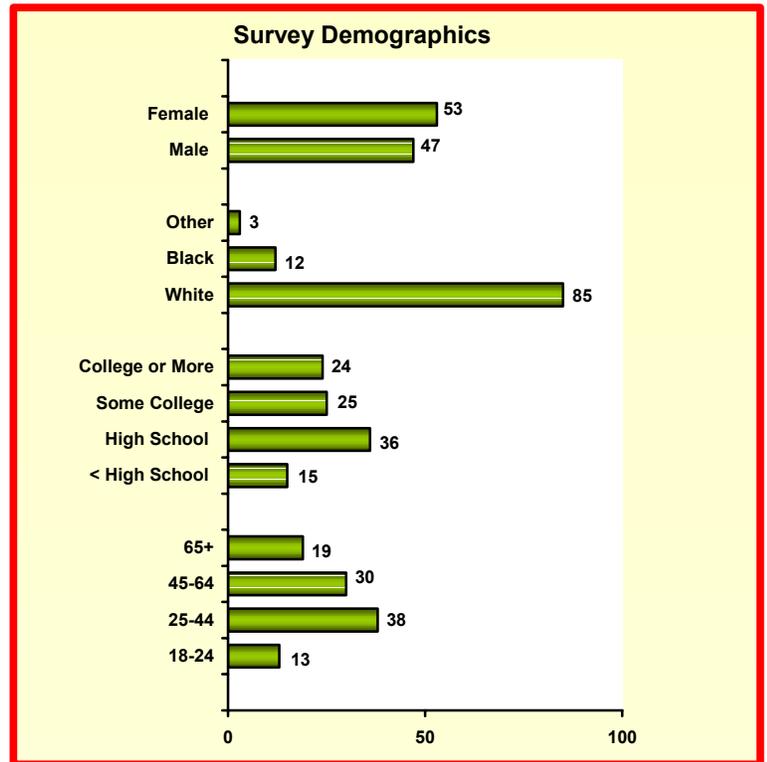
* Decoy Symptom, a 'yes' answer is incorrect.

Highlights of this Issue

- **Eighty percent of adults surveyed correctly recognized at least three heart attack symptoms.**
- **Seventy-three percent of adults surveyed correctly recognized at least three stroke symptoms.**
- **Ten percent of the respondents correctly identified all heart attack symptoms and indicated that they would call 911 if they thought someone was having heart attack.**
- **Thirteen percent recognized all stroke symptoms and indicated that they would call 911 if they thought someone was having stroke.**
- **Eighty-three percent of survey respondents indicated that they would call 911 if they thought someone was having heart attack or stroke.**

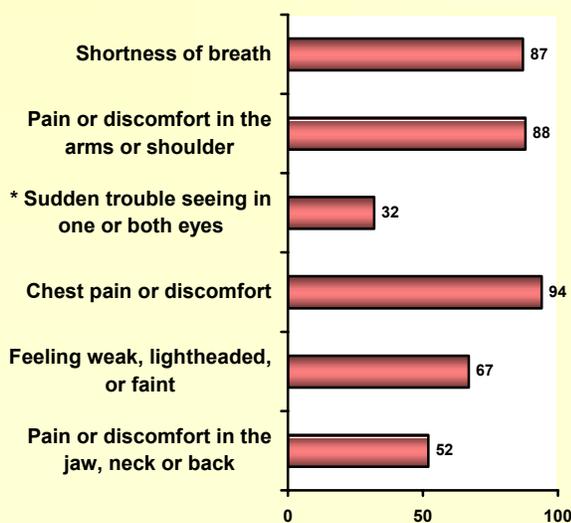
Demographics:

Of the 2,928 adults who were interviewed, 1,122 were men, 1806 were women, 2,459 were white, and 359 were black. Data were weighted to reflect the age and gender distribution in Arkansas. The following chart summarizes the demographics of the survey participants using weighted data.



Results:

Figure 1. Knowledge of the Signs and Symptoms of a Heart Attack

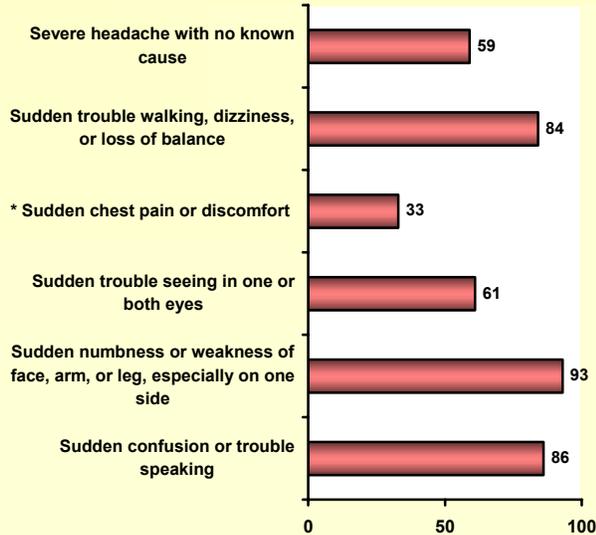


*A decoy symptom, percent answering ‘no’

Knowledge of the signs and symptoms of a heart attack (Figure 1):

Most respondents identified the following signs as someone having a heart attack: chest pain or discomfort (94%), pain or discomfort in the arms or shoulder (88%), and shortness of breath (87%). Feeling weak, lightheaded, or faint (67%) and pain or discomfort in the jaw, neck or back (52%) were less recognized as heart attack symptoms. Around one third (32%) of respondents, however, correctly stated that sudden trouble seeing out of one or both eyes (a decoy symptom) is not a heart attack symptom.

Figure 2. Knowledge of the Signs and Symptoms of a Stroke

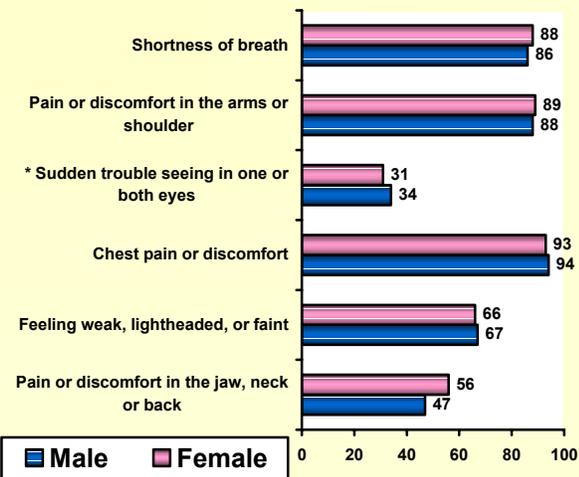


* A decoy symptom, percent answering ‘no’

Knowledge of the signs and symptoms of a stroke (Figure 2):

Most participants identified the following signs of stroke: sudden numbness or weakness of face, arm, or leg, especially on one side (93%); sudden confusion or trouble speaking (86%); sudden trouble walking, dizziness, or loss of balance (84%). Fewer participants identified severe headache with no known cause (59%) and sudden trouble seeing out of one or both eyes (61%) as stroke symptoms. Finally, about one third (33%) of respondents correctly stated that sudden chest pain or discomfort is not the sign of stroke.

Figure 3. Knowledge of the Signs and Symptoms of a Heart Attack by Gender

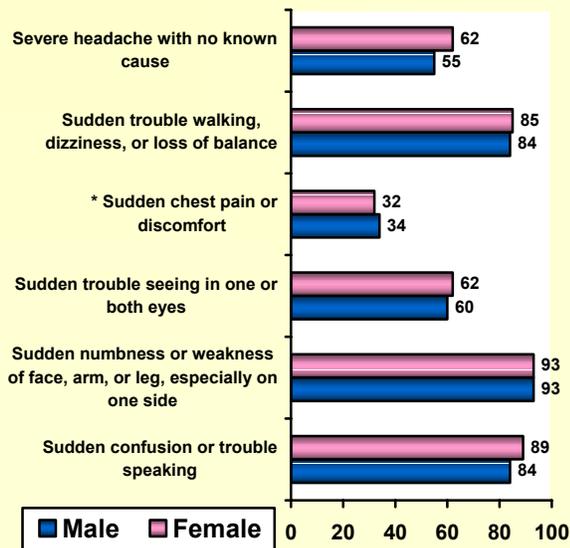


* A decoy symptom, percent answering ‘no’

Knowledge of the signs and symptoms of a heart attack by gender (Figure 3):

There were few gender differences in the ability to identify heart attack symptoms; however, women were more likely than men to correctly identify pain or discomfort in the jaw, neck or back as a symptom (56% vs. 47%, respectively). About a third of both males (34%) and females (31%) knew that sudden trouble seeing out of one or both eyes is not one of the symptoms of a heart attack.

Figure 4. Knowledge of the Signs and Symptoms of a Stroke by Gender



* A decoy symptom, percent answering 'no'

Knowledge of the signs and symptoms of a stroke by gender (Figure 4):

As with heart attack, there were also few gender differences in the ability to identify stroke. Women however were more likely than men to identify severe headache with no known cause as one of the symptoms of stroke (62% vs. 55%, respectively). Men and women were equally likely to recognize sudden numbness or weakness of the face, arm, or leg, especially on one side as signs and symptoms of a stroke.

Conclusions:

- Overall, 80 percent of the 2,928 adults surveyed correctly recognized at least three heart attack symptoms.
- Seventy-three percent correctly recognized at least three stroke symptoms.
- Only 10 percent of the respondents correctly identified all heart attack symptoms and indicated that they would call 911 if they thought someone was having heart attack.
- Thirteen percent recognized all stroke symptoms and indicated that they would call 911 if someone was having stroke.
- Eighty-three percent of survey respondents indicated that they would call 911 if they thought someone was having heart attack or stroke.

Table 1. Percentage of respondents recognizing major heart attack symptoms by Selected characteristics

Characteristic	Sample Size	Pain or discomfort in the jaw, neck or back % ± 95% CI	Feeling weak, lightheaded, or faint % ± 95% CI	Chest pain or discomfort % ± 95% CI	* Sudden trouble seeing in one or both eyes % ± 95% CI	Pain or discomfort in the arms or shoulder % ± 95% CI	Shortness of breath % ± 95% CI	Call 911 if someone is having a heart attack % ± 95% CI
Total	2928	52.1±2.1	66.7±2.0	93.6±1.0	32.5±2.0	88.4±1.4	87.3±1.4	82.9±1.6
Race								
White	2459	55.5±2.3	68.5±2.1	94.8±1.0	32.5±2.1	91.2±1.3	88.7±1.4	82.6±1.8
Black	359	27.9±5.4	52.2±6.4	84.5±4.8	31.7±6.1	70.1±6.3	77.4±5.7	83.4±4.5
Other	87	46.3±11.7	69.2±10.7	93.9±5.2	36.6±11.3	79.4±9.5	84.4±8.7	87.3±7.4
Age								
18-24	259	38.4±7.0	66.5±6.7	95.7±2.9	24.8±6.4	82.9±5.3	83.4±5.4	83.4±5.6
25-44	1054	46.9±3.4	70.4±3.2	96.8±1.1	31.7±3.2	91.7±2.1	90.5±2.1	82.2±2.8
45-64	997	64.1±3.4	68.5±3.4	94.5±1.9	31.3±3.3	91.9±2.2	89.4±2.3	82.4±2.6
65+	593	52.3±4.4	56.9±4.4	84.5±3.1	40.7±4.4	79.9±3.4	80.4±3.4	84.2±3.2
Education								
< High School	443	42.5±5.3	55.1±5.4	86.4±3.6	33.7±5.2	77.9±4.3	78.9±4.3	82.4±4.4
High School	1026	46.8±3.6	62.4±3.5	93.3±1.9	31.2±3.3	85.4±2.7	84.9±2.7	81.9±2.9
Some College	742	57.5±4.0	71.0±3.6	96.0±1.5	32.4±3.8	91.8±2.3	89.4±2.5	82.1±3.2
College or More	715	60.1±4.1	76.1±3.6	96.1±1.7	33.5±3.9	95.8±2.1	93.9±1.9	85.4±2.8
Gender								
Male	1122	47.2±3.3	67.2±3.1	93.9±1.5	33.6±3.1	87.6±2.2	86.3±2.2	82.0±2.6
Female	1806	56.4±2.6	66.3±2.5	93.3±1.4	31.5±2.5	89.1±1.8	88.2±1.8	83.6±2.0

* A decoy symptom

Table 2. Percentage of respondents recognizing major stroke symptoms by Selected characteristics

Characteristic	Sample Size	Sudden confusion or trouble speaking % ± 95% CI	Sudden numbness or weakness of face, arm, or leg, especially on one side % ± 95% CI	Sudden trouble seeing in one or both eyes % ± 95% CI	* Sudden chest pain or discomfort % ± 95% CI	Sudden trouble walking, dizziness, or loss of balance % ± 95% CI	Severe headache with no known cause % ± 95% CI
Total	2928	86.2±1.5	92.6±1.1	61.1±2.1	32.9±2.0	84.4±1.6	58.7±2.1
Race							
White	2459	88.1±1.5	93.9±1.1	62.8±2.2	33.4±2.2	85.8±1.7	59.2±2.2
Black	359	73.9±6.0	84.1±5.1	49.8±6.4	31.7±6.3	74.8±5.9	59.2±6.3
Other	87	82.5±9.6	89.1±7.2	54.1±11.9	19.9±8.9	84.8±8.1	46.8±11.8
Age							
18-24	259	79.6±5.5	91.2±3.9	53.0±7.2	33.4±6.9	84.7±5.1	52.8±7.1
25-44	1054	88.7±2.3	95.4±1.6	61.3±3.4	35.4±3.3	85.2±2.7	58.0±3.4
45-64	997	90.2±2.4	95.2±1.7	67.6±3.3	32.5±3.3	87.7±2.4	66.3±3.3
65+	593	79.6±3.5	84.2±3.1	56.4±4.4	28.3±4.0	77.3±3.7	52.6±4.4
Education							
<High School	443	69.6±4.9	81.8±4.1	45.2±5.4	26.8±4.9	72.4±5.1	43.8±5.4
High School	1026	84.7±2.8	91.9±2.2	55.6±3.6	29.7±3.4	83.0±2.8	54.7±3.6
Some College	742	90.2±2.5	94.6±1.8	64.1±4.0	30.6±3.7	86.0±2.8	62.2±3.9
College or More	715	94.9±1.8	98.6±0.9	76.3±3.7	43.9±4.2	92.5±2.7	70.5±3.7
Gender							
Male	1122	83.7±2.4	92.5±1.6	59.6±3.3	34.3±3.2	83.7±2.5	54.8±3.3
Female	1806	88.5±1.8	92.7±1.6	62.5±2.6	31.6±2.5	85.1±2.0	62.2±2.6

*A decoy symptom

References

1. American Heart Association.
www.americanheart.org
2. Behavior Risk Factor Surveillance System 2001.
3. Arkansas Department of Health & Human Services.

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