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Indiana BRFSS Newsletter

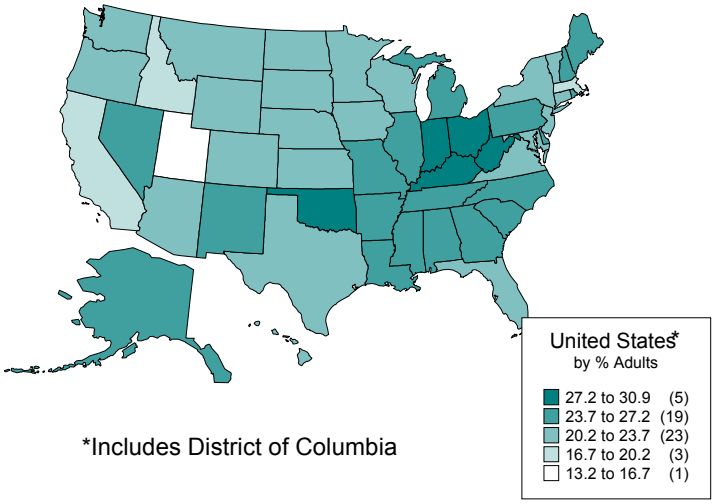
Indiana State Department of Health
Epidemiology Resource Center
Data Analysis

Heart Disease and Cerebrovascular Disease

Heart disease is the leading cause of death for Indiana residents regardless of sex or race. Cerebrovascular disease (stroke) is the third leading cause of death for Indiana residents. Some of the risk factors for these conditions are modifiable, such as smoking, obesity, a diet that includes enough fruit and vegetables, and exercise. Indiana ranks in the top seven states for the percent of adults who are obese and ranks in the top five states for the percent of adults at risk for smoking-related illnesses (Figure 1), which includes heart disease. Heart disease and stroke are not reportable conditions to state or federal health agencies, thus data must be found from another source.

Figure 1

At Risk For Smoking-Related Illnesses
(Currently Smoke Every Day or Some Days)
2001 BRFSS



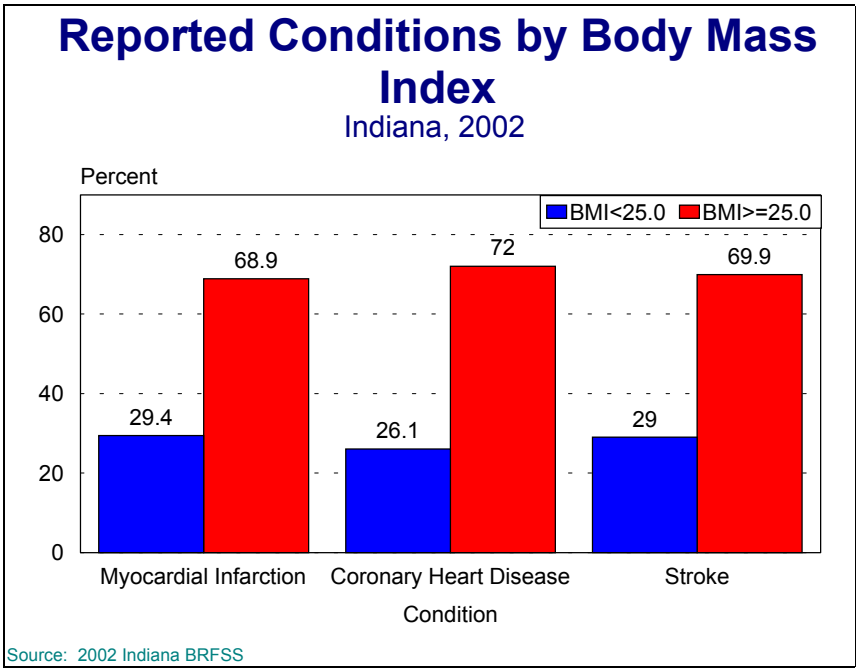
*Includes District of Columbia

The BRFSS is an annual random-dial telephone survey of adults age 18 years and older. The survey is done through a cooperative agreement with the Centers for Disease Control and Prevention and all 50 states participate.

The BRFSS relies on self-reported data. The 2002 Indiana Behavioral Risk Factor Surveillance System (BRFSS) survey contained questions regarding cardiovascular disease. These data were used to provide information on the prevalence of cardiovascular disease and stroke in Indiana's adult population. Respondents were asked if they had ever been diagnosed with a myocardial infarction (MI) (heart attack), angina or coronary heart disease or stroke. Approximately four (4.3)% reported being diagnosed with a myocardial infarction, 4.6% had been diagnosed with angina or coronary heart disease and 2.1% had been diagnosed with stroke.

Respondents that reported having their first MI were more likely to be age 41-54 than age 65 or older (32.7% vs. 24.1%, respectively). Body mass index is a modifiable risk factor associated with heart disease and stroke. Body mass index (BMI) is used to estimate overweight and obesity. The BMI is calculated as weight in kilograms divided by the square of height in meters (W/H**2). "Overweight" or "obese" is defined as a BMI greater than 25.0. Respondents that reported having MI, coronary heart disease or stroke were much more likely to have a BMI of 25.0 or more (Figure 2).

Figure 2



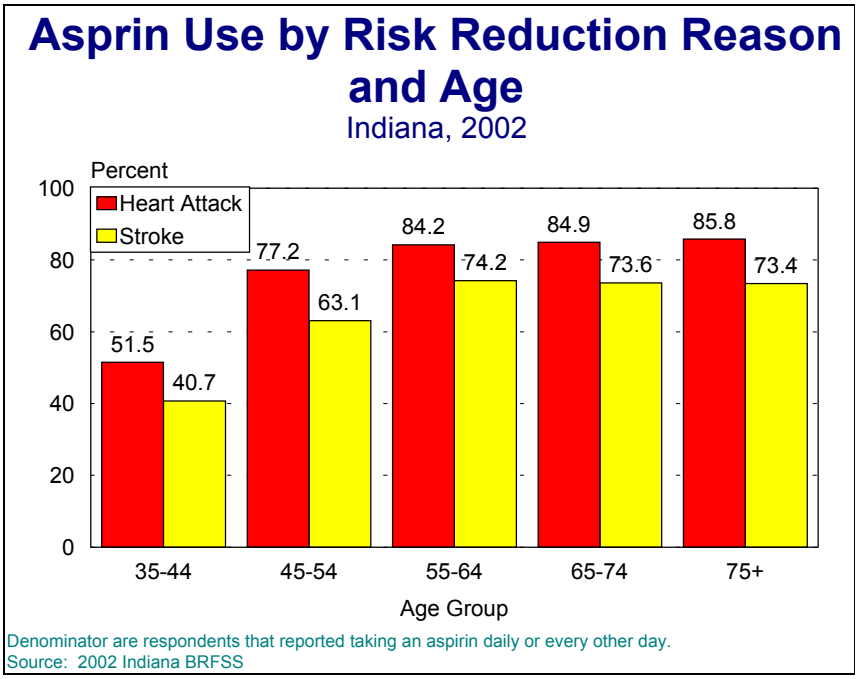
Smoking is another modifiable risk factor associated with heart disease and stroke. For respondents who had not had an MI, 49.5% had never smoked, compared with 31.7% of respondents who had an MI. While there were similar percentages (23%) for being "current smokers" for both respondents who had an MI and those who had not, the largest difference was between former smokers. Approximately 23% of respondents who had not had an MI were former smokers, compared to 42% of respondents who had an MI.

The BRFSS survey does not contain questions about when a respondent was diagnosed with an MI to compare the length of time since a person last smoked. It is possible that the respondents who are former smokers quit after being diagnosed with the heart condition. The data are similar for respondents who were diagnosed with coronary heart disease and those who were not diagnosed with that condition.

Taking aspirin daily or every other day has been associated with reducing the risk of heart attack and stroke. Approximately 33% of respondents reported taking aspirin daily or every other day. Of those respondents, 78.2% took aspirin to reduce the risk of heart attack, and 67% took aspirin to reduce the risk of stroke. Aspirin usage increased with age, with more respondents in each age group reporting that aspirin use was to reduce the risk of a heart attack rather than to reduce the risk of a stroke (Figure 3).

Health professionals have an important role in educating their patients about risk factors associated with heart disease and stroke. Respondents were asked if a doctor, nurse or other health professional had told them to eat fewer high-fat or high-cholesterol foods in the past year. Those that responded "yes" were more likely to be 45 years of age or older and blacks were more likely than whites to receive this advice (27.0% vs. 19.5%, respectively).

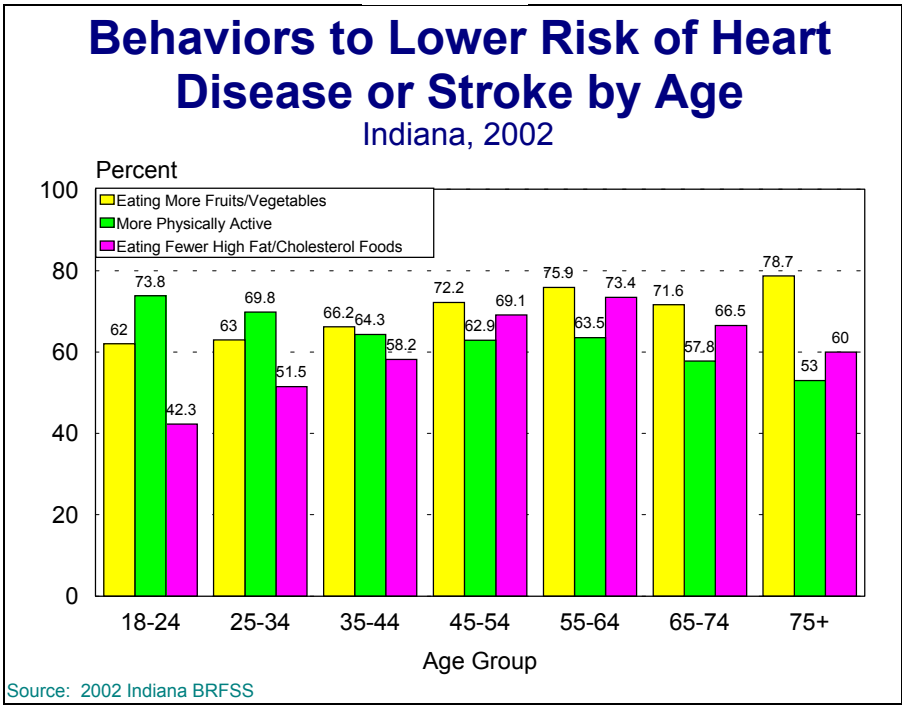
Figure 3



Respondents were also asked if a health professional had advised them to be more physically active. Respondents that received this advice were more likely to be of Hispanic origin or black than white (46.5% and 38.8% vs. 28.6%, respectively). Respondents that received advice about eating more fruits and vegetables were more likely to be age 45 and older and Hispanic or black (44.8% and 38.8%, respectively).

Regarding questions on behaviors to lower their risk of heart disease and stroke, 68.8% of respondents reported eating more fruits and vegetables, 64.9% reported being more physically active, and 59.7% were eating fewer high fat or high cholesterol foods. The percentage of respondents that reported changing their behaviors tends to increase with age up to about 65 (Figure 4).

Figure 4



Females were more likely than males to eat more fruits and vegetables and consume fewer high-fat or high-cholesterol foods. There was no difference between the sexes in regards to an increase in physical activity. Respondents who reported smoking every day or some days who had seen a health professional to get care for themselves were asked if a health professional had advised them to quit smoking. For current every day respondents who smoke and have had a myocardial infarction or coronary heart disease, 73% had received advice about quitting. Only 40% of respondents who smoked "some days" and had had an MI received this advice.

While improving and maintaining good health behaviors cannot eliminate the risk of heart disease and stroke, healthy behaviors can reduce these risks and lead to longer lives with fewer health conditions that impact daily living. Personal health management is a priority that the Indiana State Department of Health will be focusing on in the months to come.

Indiana State Department of Health

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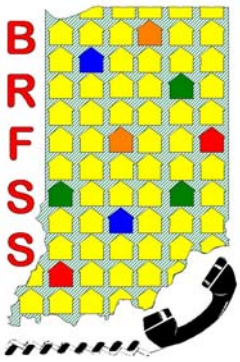

The Indiana BRFSS Newsletter is published by the Indiana State Department of Health to provide surveillance information to Indiana health professionals and to the public health community.

FIND US ON THE WEB AT:
www.statehealth.in.gov/dataandstatistics/brfss/brfss_index.htm

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The Indiana BRFSS is completed through a Cooperative Agreement between the Centers for Disease Control and Prevention and the Indiana State Department of Health.