Missouri Behavioral Risk Factor Surveillance System



2011 Key Findings



Missouri Department of Health and Senior Services Division of Community and Public Health Office of Epidemiology Margaret T. Donnelly, Director

ACKNOWLEDGEMENTS

Missouri Behavioral Risk Factor Surveillance System (BRFSS) 2011 Key Findings

Special Thanks:

Special thanks to more than 6,000 Missouri adults whose telephone numbers were randomly selected for participation in the 2011 BRFSS interview. This valuable information would not be available without their willingness to participate.

Project Management and Report Preparation:

Missouri Department of Health and Senior Services Office of Epidemiology

Shumei Yun, MD, MPH, PhD, Team Leader, Chronic Disease and Nutritional Epidemiology Team

Arthur Pashi, PhD, Research Analyst

Janet Wilson, MEd, MPA, BRFSS Coordinator

Phone: (573) 526-6660

Email: Janet.Wilson@health.mo.gov

Data Collection (Interviews):

University of Missouri-Columbia
Department of Health Management & Informatics
Health and Behavioral Risk Research Center
William T. Wells, Ph.D., Director
Al Browne, Operations Manager

The U.S. Centers for Disease Control and Prevention (CDC) Division of Behavioral Surveillance provides support to state BRFSS programs through funding, primary data analysis and technical assistance.

Suggested Citation: 2011 Missouri Behavioral Risk Factor Surveillance System Key Findings. Jefferson City, MO: Missouri Department of Health and Senior Services. Office of Epidemiology. August 2012.

Contents

Introduction	4
Key Findings	
Overall Health Measures	5
Access to Health Care	5
Health Risk Behaviors	
Current Tobacco Use and Quitting	5
Physical Inactivity	5
Fruit and Vegetable Consumption	6
Heavy and Binge Alcohol Drinking	6
Seatbelt Use	6
Chronic Conditions and Diseases	
Vision Impairment	6
High Cholesterol	6
Overweight	6
High Blood Pressure	6
Obesity	6
Arthritis	6
Depressive Disorders	6
Diabetes	6
Current Adult Asthma	7
Chronic Obstructive Pulmonary Disease (COPD)	7
Cancer	7
Heart Attack	7
Coronary Heart Disease	7
Stroke	7
Kidney Disease	7
Current Childhood Asthma	7
Chronic Disease Management	
Arthritis Burden and Management	7
Diabetes Management	7
Actions to Control High Blood Pressure	8
Preventive Practices	
Adult and Child Immunizations	8
HIV Testing	8
Policy and Environmental Change	
Secondhand Smoke Policy	8
Physical Activity Environment	8
Walking in Neighborhood	9
Perceived Nutrition Environment	9

INTRODUCTION

The Missouri Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey of adults age 18 and older that collects a range of information on health issues. BRFSS data are used to identify emerging health problems, establish health objectives and track their progress, and develop and evaluate public health policies and programs.

In 2011, 5,281 adults were interviewed January through December by the Health and Behavioral Risk Research Center at the University of Missouri-Columbia. Randomly selected household landline telephone numbers were called and an adult was randomly selected to participate in the survey. Additionally, 1,054 randomly selected adult cell telephone-only users participated in the interview. Cell phone interviews were added to the BRFSS because of the growing number of adults that use cell phones rather than landline telephones. Missouri adults living in cell phone-only households increased from 10.1 percent in 2007 to 22.4 percent from July 2009 to June 2010. Data from the landline and cell telephone interviews were aggregated and weighted by the U.S. Centers for Disease Control and Prevention (CDC) to be representative of non-institutionalized adults in Missouri. This report summarizes key findings from the survey.

Please note: In addition to adding cell phone interviews in 2011, the CDC began using a new weighting methodology that allows the data to be more representative of the adult population. Previous years of BRFSS data may be found in Annual Reports located on the Missouri Department of Health and Senior Services website at http://www.health.mo.gov/data/brfss/data.php, but should not be compared to 2011 data because of the new weighting method and combining data from landline and cell telephone interviews. A description of the new methodology may be found on the BRFSS web address above.

The 2011 BRFSS revealed the following health concerns among Missouri adults:

- 40.4 percent had been told by a health professional that their blood cholesterol was high, among those that had their blood cholesterol checked
- 34.6 percent were overweight
- 34.3 percent had been told by a health professional that they had high blood pressure
- 30.3 percent were obese
- 28.8 had been diagnosed with arthritis by a doctor
- 28.4 percent had engaged in no leisure time physical activity during the past 30 days
- 26.1 percent of males engaged in binge drinking of alcohol (5 or more drinks at one time)
- 25.0 percent smoked cigarettes, including 44.0 percent of those with annual household incomes of less than \$15,000
- 22.6 did not always wear a seat belt
- 21.3 percent of adults age 18-64 did not have health care coverage, including 38.7 percent of those with annual household incomes of less than \$15,000 and 42.1 percent of those with incomes of \$15,000-\$24,999
- 15.7 percent did not see a doctor when needed in the past 12 months due to cost

In general, a consistent finding throughout the survey is that adults that have the lowest education levels and annual household income compared to those with the highest education and income levels were less healthy, engaged in health risk behaviors to a greater extent, and were less likely to have health care coverage.

1

¹ Blumberg SJ, Luke JV, Ganesh N, et al. Wireless substitution: State-level estimates from the National Health Interview Survey, January 2007–June 2010. National health statistics reports; no 39. Hyattsville, MD: National Center for Health Statistics. 2011. Available from: http://www.cdc.gov/nchs/data/nhsr/nhsr039.pdf.

2011 BRFSS KEY FINDINGS

Overall Health Measures

Most Missouri adults (81.8 percent) had excellent, very good or good general health while 18.2 percent had fair or poor health. Significantly more adults with annual household incomes of less than \$15,000 had fair or poor general health compared to those with incomes of 15,000 or greater. Almost one-quarter of adults (24.7 percent) experienced poor physical health on three or more of the past 30 days. Significantly more adults with household incomes of less than \$15,000 had poor physical health than those with household incomes of \$15,000 or greater. Twenty-six (26.2) percent had mental health that was not good on three or more of the past 30 days. Thirty-one (31.4) percent were kept from doing their usual activities on three or more of the past 30 days due to poor physical or mental health.

Access to Health Care

Among adults age 18 to 64, 21.3 percent had no health care coverage. Significantly more adults with annual household incomes less than \$25,000 had no health care coverage compared to those with incomes of \$25,000 or greater. Among those with annual household incomes less than \$15,000, 38.7 percent had no health insurance. Forty-two percent (42.1) of those with annual household incomes between \$15,000 and \$24,999 had no health insurance.

Sixteen (15.7) percent of adults needed to see a doctor in the past 12 months but could not because of the cost. Significantly more African-Americans (22.9 percent) than whites (14.1 percent) could not see a doctor due to cost. Significantly more adults with annual household incomes of less than \$25,000 could not see a doctor due to cost compared to those with incomes of \$25,000 or greater. Twenty-two (21.6) percent of adults had not seen a doctor for a routine checkup in two or more years.

Health Risk Behaviors

Current Tobacco Use and Quitting

Twenty-five (25.0) percent of Missouri adults smoked cigarettes every day or some days. Significantly more adults with less than a high school education (40.8 percent) smoked cigarettes than adults with a high school education or GED (30.0 percent), some post high school education (23.1 percent) or a college degree (10.7 percent). Ten (9.6) percent of males used smokeless tobacco every day or some days. More than one-half (52.2 percent) of current smokers stopped smoking for one day or longer in the past 12 months because they were trying to quit. Among all Missouri adults, 73.8 percent had seen, read or heard ads about quitting smoking cigarettes in the past 30 days and 34.6 percent were aware of the Missouri Tobacco Quitline services that are available to help people quit smoking.

Physical Inactivity

Twenty-eight (28.4) percent of Missouri adults participated in no leisure time physical activity or exercise in the past month. Significantly more adults with less than a high school education (41.7 percent) and a high school education or GED (33.5 percent) were physically inactive compared to adults with post high school education (25.9 percent) or a college degree (16.7 percent). One-half (49.5 percent) of adults met the Centers for Disease Control and Prevention recommendation for aerobic activity (moderate activity 5 or more days per week for 30 or more minutes each day OR vigorous activity 3 or more days per week for 20 or more minutes each day). Over half (56.1 percent) of adults reported walking was their primary source of physical activity.

Fruit and Vegetable Consumption

Only 14.4 percent of adults are vegetables 3 or more times per day during the past 30 days. Slightly more adults (25.7 percent) are fruit 2 or more times per day during the past 30 days.

Heavy and Binge Alcohol Drinking

Seven (7.3) percent of Missouri adults were considered heavy drinkers as defined by males having more than two drinks and females having more than one drink per day. Significantly more males (9.6 percent) than females (5.1 percent) engaged in heavy drinking. Significantly more males (26.1 percent) than females (12.9 percent) had engaged in binge drinking on at least one occasion during the past month. Binge drinking is defined as having five or more drinks on one occasion for males and four or more drinks for females.

Seatbelt Use

Twenty-three (22.6) percent of Missouri adults did not always wear a seat belt. Thirty (29.6) percent of males and 16.2 percent of females did not always wear a seat belt. Significantly more adults ages 18 to 24 (34.8 percent) did not always wear a seat belt compared to adults ages 35 and older.

Chronic Conditions and Diseases

The prevalence of Missouri adults that had the following chronic conditions or diseases:

• *Vision impairment – 49.1 percent*

Significantly more females (53.4 percent) than males (44.5 percent) had ever been told by a health professional that they had vision impairment

• *High Cholesterol* – **40.4 percent** (among adults that had their cholesterol checked) Significantly more adults with less than a high school education (49.6 percent) and adults with a high school education or GED (45.8 percent) had high cholesterol compared to adults with some post high school education (38.0 percent) and adults with a college degree (32.2 percent).

• *Overweight* – 34.6 percent

Significantly more males (39.4 percent) than females (29.8 percent) were overweight. Significantly more adults with annual household incomes of \$75,000 or greater (39.1 percent) were overweight than adults with household incomes of less than \$15,000 (29.7 percent).

• *High Blood Pressure* – 34.3 percent

Significantly more adults with less than a high school education (41.3 percent), high school education or a GED (40.8 percent) and with some post high school education (32.9 percent) had ever been told they had high blood pressure compared to adults a college education (26.4 percent). Eighty (80.2) percent of those with high blood pressure were taking medication to control it.

• *Obesity* – 30.3 percent

Significantly more African-American adults (39.5 percent) were obese than white adults (29.4 percent).

• *Arthritis* – 28.8 percent

Significantly more females (32.4 percent) than males (24.8 percent) had doctor-diagnosed arthritis.

• *Depressive disorder* – 20.1 percent

Significantly more females (24.4 percent) than males (15.5 percent) had been told by a health professional that they had a depressive disorder. Significantly more adults with an annual household income of less than \$25,000 had a depressive disorder than those with a household income of \$35,000 or greater.

• *Diabetes* – 10.2 percent

Significantly more adults with less than a college education had ever been told by a health professional they had diabetes compared to adults with a college education.

• *Asthma (Current)* – 9.2 percent

Significantly more females (11.5 percent) than males (6.6 percent) currently had asthma. Significantly more adults with an annual household income of less than \$15,000 (17.2 percent) had asthma than those with a household income of \$15,000 or greater.

• Chronic Obstructive Pulmonary Disease (COPD) – 8.1 percent

Significantly more adults with an annual household income less than \$15,000 (16.9 percent) had COPD than adults with a household income of \$25,000 or greater.

• Cancer (Other than skin) – 7.3 percent

Significantly more females (8.7 percent) than males (5.8 percent) had ever been told they had some form of cancer other than skin cancer. **6.5 percent** of adults had ever been told they had skin cancer.

• *Heart Attack* – 5.6 percent

Significantly more males (7.0 percent) than females (4.2 percent) had ever been told they had had a heart attack or a myocardial infarction.

• Coronary Heart Disease – 4.7 percent

Significantly more males (5.7 percent) than females (3.7) had ever been told that they had coronary heart disease or angina.

• *Stroke* – 3.6 percent

Significantly more adults with less than a high school education (7.0 percent) had ever been told they had had a stroke than adults with more than a high school education.

• *Kidney Disease* – 2.3 percent

There were no identified disparities among adults with kidney disease.

Childhood Asthma Prevalence

Adults with children under the age of 18 were asked to answer questions about a randomly selected child in the household. Responses were weighted to be representative of all children in Missouri under the age of 18. As a result, it was found that 11.2 percent of children under the age of 18 in Missouri had been told by a doctor or other health professional that they had asthma. Among those that had been told they had asthma, 75.1 percent still had the condition.

Chronic Disease Management

Arthritis Burden and Management

Fifty-two (51.6) percent of adults with arthritis were limited in their usual activities due to the condition. Over one-third (33.6 percent) had their work affected by the condition and 20.9 percent had social activities interrupted a lot. Thirty (30.4) percent rated their pain due to arthritis between seven and 10 on a scale of one to 10 with 10 being the greatest pain.

Fifty-one (50.9) percent of those with arthritis had a doctor or health professional suggest physical activity or exercise to help their arthritis or joint symptoms. Thirty-four (34.1) percent had weight loss suggested by a health professional. Eleven (11.4) percent had taken an education course or class to learn how to manage their arthritis or joint symptoms.

Diabetes Management

Among adults that had been told by a doctor or other health professional they had diabetes:

- 91.2 percent had seen a doctor or other health professional for their diabetes one or more times in the past 12 months
- 71.6 percent had a health professional test for A one C two or more times in the past 12 months
- 70.0 percent had a dilated eye exam within the past year
- 71.5 percent had their feet checked for sores by a health professional one or more times in the past 12 months
- 63.3 percent checked their blood glucose one or more times per day
- 55.6 percent had taken a course or class in how to manage their diabetes

- 26.8 percent were taking insulin
- 19.3 percent had been told diabetes had affected their eyes or that they had retinopathy

Actions to Control High Blood Pressure

Among adults that had been told by a doctor or other health professional their blood pressure was high -

The percent that were doing the following to lower or control their high blood pressure:

- 75.7 percent were changing their eating habits
- 75.3 percent were cutting down on salt and 9.2 percent did not use salt
- 65.9 percent were exercising
- 49.6 percent did not drink alcohol and 28.1 percent were cutting down on alcohol use

The percent that had a doctor or other health professional advise them to do the following to help lower or control their high blood pressure:

- 90.5 percent were advised to take medication
- 75.1 percent were advised to exercise
- 67.7 percent were advised to cut down on salt
- 61.8 percent were advised to change their eating habits
- 55.3 percent were advised to reduce alcohol use, among those that drank alcohol

Preventive Practices

Immunizations

Thirty-eight (37.8) percent of adults age 18 and older had a flu shot within the past year. Among adults age 65 and older, 63.1 percent had a flu shot within the past year. Also among adults age 65 and older, 71.7 percent had ever had a pneumonia vaccination. Forty-four (43.9) percent of children under the age of 18 had had a flu vaccination (shot or nasal spray) in the past year. (Note: The random child selection process used for determining childhood asthma prevalence was also use for child immunization.)

HIV Testing and Risk

Thirty-three (32.3) percent of adults age 18 and older had ever been tested for HIV. Significantly more African-Americans (64.1 percent) than whites (27.9 percent) had been tested. Significantly more adults with annual household incomes of less than \$25,000 had been tested than adults with incomes of \$35,000 and greater. Four (3.8) percent of adults ages 18 to 64 had engaged in behaviors during the past year that put them at risk for HIV.

Policy and Environmental Change

Secondhand Smoke Policy

Sixty-nine (69.4) percent of Missouri adults would support a local law that would make all indoor workplaces in their community smoke-free, including restaurants, bars and casinos. Sixty-four (64.4) percent would support a change in Missouri state law that would make all workplaces smoke-free by prohibiting smoking in all indoor workplaces state-wide, including restaurants, bars and casinos.

Physical Activity Environment

Over one-half (56.4 percent) of Missouri adults had sidewalks in their neighborhoods. Forty-one (40.6) percent described street lighting in their neighborhood as very good or good for walking at night. Eighty-one (81.0) percent said their neighborhood was extremely or quite safe from crime. Nearly one quarter (23.5 percent) lived in communities in which roads and streets had shoulders or marked lanes for bicycling.

2011 Missouri BRFSS Key Findings

Walking in Neighborhood

Forty-seven (47.3) percent of Missouri adults did not walk in their neighborhood for leisure or to get around in the past 30 days. Twenty-four (23.7) percent walked on one to six days, 10.2 percent walked on seven to 13 days and 19.1 percent walked on 14 or more days of the past thirty days. More than one-third (34.5 percent) said lack of time, a medical condition <u>or</u> lack of energy/motivation was the number one reason for not walking more frequently in their neighborhood. Twenty-three (23.2) percent said weather, 13.2 percent said too much traffic, no sidewalks, safety/crime <u>or</u> nowhere to go, and 29.0 percent said they exercised elsewhere <u>or</u> there was another reason for not walking in their neighborhood more often.

Perceived Nutrition Environment

Seventy-five (75.4) percent of Missouri adults agreed or strongly agreed that it was easy to purchase healthy foods such as whole grain foods, low fat options, and fruits and vegetables in their neighborhood. Eighteen (18.3) percent disagreed or strongly disagreed and 6.3 percent neither agreed nor disagreed that healthy foods were easy to purchase in their neighborhood.