ACKNOWLEDGEMENTS

Missouri Behavioral Risk Factor Surveillance System (BRFSS)
2012 Key Findings

Special Thanks:
Special thanks to more than 6,000 Missouri adults whose telephone numbers were randomly selected for participation in the 2012 BRFSS interview. This valuable information would not be available without their willingness to participate.

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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.

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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 2012, 5,310 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, 1,403 randomly selected adult cell telephone-mostly 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 32.5 percent in 2011.¹ 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 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 or 2012 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 at the BRFSS web address.

The 2012 BRFSS revealed the following health concerns among Missouri adults:

- 36.2 percent were overweight
- 32.8 percent had been told by a health professional that they had high blood pressure
- 29.6 percent were obese
- 29.6 had been diagnosed with arthritis by a doctor
- 24.7 percent had engaged in no leisure time physical activity during the past 30 days
- 24.5 did not always wear a seat belt
- 23.9 percent smoked cigarettes, including 40.5 percent of those with annual household incomes of less than $15,000
- 23.5 percent of males engaged in binge drinking of alcohol (5 or more drinks at one time)
- 20.3 percent of adults age 18-64 did not have health care coverage, including 39.5 percent of those with annual household incomes of less than $15,000 and 44.5 percent of those with incomes of $15,000- $24,999
- 15.3 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 incomes 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.

2012 BRFSS KEY FINDINGS

Overall Health Measures

Most Missouri adults (81.3 percent) had excellent, very good or good general health while 18.7 percent had fair or poor health. A significantly greater percentage of adults with annual household incomes of less than $15,000 had poor general health compared to those with incomes of $15,000 or greater. One-quarter of adults (25.3 percent) experienced poor physical health on three or more of the past 30 days. Twenty-six (25.5) percent had mental health that was not good on three or more of the past 30 days. Thirty-three (32.5) 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, 20.3 percent had no health care coverage. A significantly greater percentage of 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, 39.5 percent had no health care coverage. Forty-five (44.5) percent of those with annual household incomes between $15,000 and $24,999 had no health care coverage. Fifteen (15.3) percent of adults needed to see a doctor in the past 12 months but could not because of the cost. A significantly greater percentage of African-Americans (23.2 percent) than whites (13.8 percent) could not see a doctor due to cost. A significantly greater percentage of 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 (20.0) 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-four (23.9) percent of Missouri adults smoked cigarettes every day or some days. A significantly greater percentage of adults with less than a high school education (42.1 percent) smoked cigarettes than adults with a high school education or GED (26.3 percent), some post high school education (24.3 percent) or a college degree (9.5 percent). More than one-half (55.6 percent) of current smokers stopped smoking for one day or longer in the past 12 months because they were trying to quit. Smokeless tobacco was used every day or some days by 9.9 percent of males.

Physical Inactivity

Twenty-five (24.7) percent of Missouri adults participated in no leisure time physical activity or exercise in the past month. A significantly greater percentage of adults with less than a high school education (40.7 percent) and a high school education or GED (29.5 percent) were physically inactive compared to adults with post high school education (21.7 percent) or a college degree (12.6 percent).

Heavy and Binge Alcohol Drinking

Six (6.3) 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. A significantly greater percentage of males (8.2 percent) than females (4.5 percent) engaged in heavy drinking. A significantly greater percentage of males (23.5 percent) than females (11.5 percent) had engaged in binge drinking on at least
Binge drinking is defined as having five or more drinks on one occasion for males and four or more drinks for females.

**Drinking Alcohol and Driving**
Four (3.8) percent of adults had driven one or more times after having too much to drink in the past 30 days. A significantly greater percentage of males (5.5 percent) than females (1.9 percent) drove after drinking too much.

**Seatbelt Use**
Twenty-five (24.5) percent of Missouri adults did not always wear a seat belt. Thirty-three (33.3) percent of males and 16.2 percent of females did not always wear a seat belt. A significantly greater percentage of adults ages 18 to 24 (33.0 percent) did not always wear a seat belt compared to adults ages 45 and older.

**Falls**
Among adults age 45 and older, 30.9 percent had fallen one or more times in the past three months. Thirty-eight (38.4) percent had one or more of the falls result in an injury that caused them to limit their regular activities for at least a day or to go see a doctor.

**Salt (sodium) Intake**
Salt intake was being watched or reduced by 50.2 percent of Missouri adults. Among those that had been monitoring their salt intake, 72.6 percent had been doing so for two or more years. One quarter (25.4 percent) of adults had been advised by a doctor or other health professional to reduce salt intake.

**Chronic Diseases and Conditions**
The prevalence of Missouri adults that had the following chronic conditions or diseases:
- **Overweight – 36.2 percent**
  A significantly greater percentage of males (41.6 percent) than females (30.8 percent) were overweight.
- **Obesity – 29.6 percent**
  A significantly greater percentage of African-American adults (41.2 percent) were obese than white adults (27.8 percent).
- **High Blood Pressure – 32.8 percent**
- **Arthritis – 29.6 percent**
  A significantly greater percentage of females (34.1 percent) than males (24.8 percent) had doctor-diagnosed arthritis.
- **Depressive disorder – 20.1 percent**
  A significantly greater percentage of females (25.0 percent) than males (14.8 percent) had been told by a health professional that they had a depressive disorder. A significantly greater percentage of adults with an annual household income of less than $25,000 had a depressive disorder than those with a household income of $25,000 or greater.
- **Vision impairment – 16.8 percent**
  A significantly greater percentage of females (18.7 percent) than males (14.7 percent) had trouble seeing, even when wearing glasses or contact lenses.
- **Diabetes – 10.7 percent**
  A significantly greater percentage of adults with less than a high school education (17.4 percent) had ever been told by a health professional they had diabetes compared to adults with a high school or greater education.
- **Asthma (Current) – 10.4 percent**
  A significantly greater percentage of females (13.1 percent) than males (7.5 percent) currently had asthma. A significantly greater percentage of adults with an annual household income of less than $15,000 (19.4 percent) had asthma than those with a household income of $25,000 or greater.
• **Chronic Obstructive Pulmonary Disease (COPD) – 8.1 percent**
  A significantly greater percentage of adults with less than a high school education (19.8) had COPD than adults with a high school education (8.4), post high school (6.3) or college degree (3.3).

• **Cancer (Other than skin) – 7.5 percent**
  A significantly greater percentage of females (9.6 percent) than males (5.2 percent) had ever been told they had some form of cancer other than skin cancer. Six and one-half (6.5) percent of adults had ever been diagnosed with Skin cancer.

• **Heart Attack – 5.0 percent**
  A significantly greater percentage of males (6.3 percent) than females (3.8 percent) had ever been told they had a heart attack or a myocardial infarction.

• **Coronary Heart Disease – 4.9 percent**
  A significantly greater percentage of males (6.0 percent) than females (3.9 percent) had ever been told that they had coronary heart disease or angina.

• **Stroke – 3.5 percent**
  A significantly greater percentage of adults with annual household incomes of less than $15,000 (7.2 percent) had ever been told they had a stroke than adults with annual household incomes of $50,000 or greater.

• **Kidney Disease – 2.8 percent**

**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 14.6 percent of children under the age of 18 in Missouri had ever been told by a doctor or other health professional that they had asthma. Among those that had been told they had asthma, 70.4 percent still had the condition.

**Preventive Practices**

*Breast Cancer Screening*
Ninety-one (90.8) percent of females age 18 and older had ever had a clinical breast exam. Among those that had had a clinical breast exam, 79.9 percent had the exam within the past two years.

Among females age 40 and older, 72.9 percent had a mammogram within the past two years. A significantly smaller percentage of women with annual household incomes of less than $15,000 (58.0 percent) and $15,000-$24,999 (62.8 percent) had a mammogram within the past two years than women with household incomes of $25,000-$34,999 (75.2 percent), $35,000-$49,999 (75.7 percent), $50,000-$74,999 (75.4 percent) and $75,000 or greater (82.5 percent).

Among females age 50 and older, 77.0 percent had a mammogram within the past two years. A significantly greater percentage of African-American women (87.7 percent) had a mammogram within the past two years than white women (76.1 percent).

*Cervical Cancer Screening*
Among females age 18 and older, 76.8 percent had a pap test within the past three years. A significantly greater percentage of African-American females (85.2 percent) than white females (75.9 percent) had a pap test within the past three years.

*Colorectal Cancer Screening*
Among adults age 50 and older, 12.0 percent had a home blood stool test within the past two years. Sixty-seven (66.5) percent of adults age 50 and older had ever had a sigmoidoscopy or colonoscopy exam. A significantly greater percentage of adults with household incomes of $25,000 and greater had ever had a
sigmoidoscopy or colonoscopy compared to adults with household incomes of less than $15,000. Among those that had one of the exams, 96.6 percent had a colonoscopy as their most recent exam.

Prostate Cancer Screening
Among men age 40 and older, 50.2 percent had a Prostate-Specific Antigen (PSA) test within the past two years. Among men that had the test, 71.8 percent had it as a routine exam, 4.0 percent had it because of prostate problems, 6.6 percent had it because of family history of prostate cancer, 13.2 percent had it for other reasons, and 4.3 percent had been diagnosed with prostate cancer. Sixty-one (61.1) percent of men age 40 and older had a doctor or other health care professional talk to them about the advantages of a PSA test and 58.2 had a doctor or other health professional recommend the test.

Immunizations
Forty (39.7) percent of adults age 18 and older had a flu shot within the past year. Among adults age 65 and older, 67.3 percent had a flu shot within the past year. Also among adults age 65 and older, 71.1 percent had ever had a pneumococcal vaccination. Forty-six (46.4) percent of children under the age of 18 had a flu vaccination (shot or nasal spray) in the past year. (Note: The random child selection process that was used for determining childhood asthma prevalence was also used to determine childhood immunization.)

HIV Testing and Risk
Thirty-three (33.2) percent of adults age 18 and older had ever been tested for HIV. A significantly greater percentage of African-Americans (60.1 percent) than whites (29.2 percent) had been tested. A significantly greater percentage of adults with annual household incomes of less than $15,000 (45.8 percent) had been tested than adults with incomes of $15,000 and greater. Five (4.6) percent of adults ages 18 to 64 had engaged in behaviors during the past year that put them at risk for HIV.

Oral Health
Sixty-two (61.8) percent of Missouri adults visited a dentist within the past 12 months, 11.1 percent had seen a dentist between one and two years ago, 11.4 percent had done so between two and five years ago and 15.4 percent had last seen a dentist five or more years ago. A significantly smaller percentage of adults with annual household incomes of less than $15,000 (37.2 percent) and $15,000-$24,999 (44.1 percent) had seen a dentist within the past year compared to those with household incomes of $25,000 and greater. Forty-eight (48.0) percent had had one or more teeth removed due to decay, gum disease or infection, including 8.1 percent that had all their teeth removed.

Policy and Environmental Change
Secondhand Smoke Policy
Seventy-three (72.7) 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-five (64.7) 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 (56.6 percent) of Missouri adults had sidewalks in their neighborhoods. Sixty (60.3) percent described street lighting in their neighborhood as fair or poor for walking at night. Twenty-two (22.6) percent lived in communities in which roads and streets had shoulders or marked lanes for bicycling.

Perceived Nutrition Environment
Seventy-two (71.9) 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. Twenty-one (21.4) percent disagreed or strongly disagreed and 6.7 percent neither agreed nor disagreed that healthy foods were easy to purchase in their neighborhood.