

Prevention Status Report | 2013

Advancing evidence-based policy and practice

PSR | 2013



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Centers for Disease Control and Prevention
Office for State, Tribal, Local and Territorial Support

Prevention Status Report | 2013

Missouri

PSR | 2013

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Prevention Status Report | 2013

Missouri

The Prevention Status Reports (PSRs) highlight—for all 50 states and the District of Columbia—the status of public health policies and practices designed to prevent or reduce 10 important health problems or concerns:

Excessive alcohol use	Motor vehicle injuries
Food safety	Nutrition, physical activity, and obesity
Healthcare-associated infections	Prescription drug overdose
Heart disease and stroke	Teen pregnancy
HIV	Tobacco use

PSR Framework

The PSRs follow a simple framework:

- Describe the public health **problem** using public health data
- Identify potential **solutions** to the problem drawn from research and expert recommendations
- Report the **status** of those solutions for each state and the District of Columbia

Criteria for Selection of Policies and Practices

The policies and practices included in the PSRs were selected because they

- Can be monitored using state-level data that are readily available for most states and the District of Columbia
- Meet one or more of the following criteria:
 - Supported by systematic review(s) of scientific evidence of effectiveness (e.g., *The Guide to Community Preventive Services*)
 - Explicitly cited in a national strategy or national action plan (e.g., *Healthy People 2020*)
 - Recommended by a recognized expert body, panel, organization, study, or report with an evidence-based focus (e.g., Institute of Medicine)

Ratings

The PSRs use a simple, three-level rating scale to provide a practical assessment of the status of policies and practices in each state and the District of Columbia:

- A **green** rating indicates that the policy or practice is established in accordance with supporting evidence and/or expert recommendations.
- A **yellow** rating indicates that the policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.
- A **red** rating indicates that the policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

It is important to note that the ratings reflect the *status of policies and practices* and do not reflect the *status of efforts* by state health departments, other state agencies, or other organizations to establish or strengthen those policies and practices. Strategies for improving public health vary by individual state needs, resources, and public health priorities.

Prevention Status Reports—Summary for Missouri | 2013

The Prevention Status Reports (PSRs) highlight—for all 50 states and the District of Columbia—the status of public health policies and practices designed to prevent or reduce 10 important health problems or concerns. Below is a summary of Missouri’s PSR ratings for 2013.

PSR Policies and Practices by Topic	2013 PSR Rating
Excessive Alcohol Use	
State beer tax	Red
State distilled spirits tax	Red
State wine tax	Red
Commercial host (dram shop) liability law	Yellow
Local authority to regulate alcohol outlet density	Yellow
Food Safety	
Speed of pulsed-field gel electrophoresis (PFGE) testing of reported <i>E. coli</i> O157 cases	Green
Completeness of PFGE testing of reported <i>Salmonella</i> cases	Green
Healthcare-Associated Infections (HAIs)	
State health department participation in statewide HAI prevention efforts	Green
Heart Disease and Stroke	
Implementation of electronic health records	Yellow
Pharmacist collaborative drug therapy management policy	Green
HIV	
State Medicaid reimbursement for routine HIV screening	Green
State HIV testing laws	Green
Reporting of CD4 and viral load data to state HIV surveillance program	Green
Motor Vehicle Injuries	
Seat belt law	Red
Child passenger restraint law	Yellow
Graduated driver licensing system	Red
Ignition interlock law	Yellow
Nutrition, Physical Activity, and Obesity	
Secondary schools not selling less nutritious foods and beverages	Red
State nutrition standards policy for foods and beverages sold or provided by state government agencies	Red
Inclusion of nutrition and physical activity standards in state regulations of licensed childcare facilities	Red
State physical education time requirement for high school students	Red
Average birth facility score for breastfeeding support	Red
Prescription Drug Overdose	
State pain clinic law	Red
Prescription drug monitoring programs following selected best practices	Red
Teen Pregnancy	
Expansion of state Medicaid family planning eligibility	Yellow
Tobacco Use	
State cigarette excise tax	Red
Comprehensive state smoke-free policy	Red
Funding for tobacco control	Red



PSR Rating System*

Green	The policy or practice is established in accordance with supporting evidence and/or expert recommendations.
Yellow	The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.
Red	The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

*The rating systems for the Excessive Alcohol Use (<http://www.cdc.gov/stltpublichealth/psr/alcohol/>) and Nutrition, Physical Activity, and Obesity (<http://www.cdc.gov/stltpublichealth/psr/npao/>) reports varied slightly. For details, please visit their respective pages on the PSR website. A more detailed explanation of the PSR rating system is available at <http://www.cdc.gov/stltpublichealth/psr/>.

More Information


For more information about public health activities in Missouri, visit the Missouri Department of Health and Senior Services website (<http://health.mo.gov/index.php>). For additional resources and to view reports for other states, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/>).

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Excessive Alcohol Use

Missouri

Public Health Problem

 Excessive alcohol use is responsible for about 88,000 deaths and 2.5 million years of potential life lost in the United States each year (1). Binge drinking (five or more drinks per occasion for men or four or more drinks per occasion for women) is responsible for more than half the deaths and two-thirds of the years of potential life lost resulting from excessive alcohol use (2).

Excessive drinking results in 1,866 deaths and 55,681 years of potential life lost each year in Missouri (1).

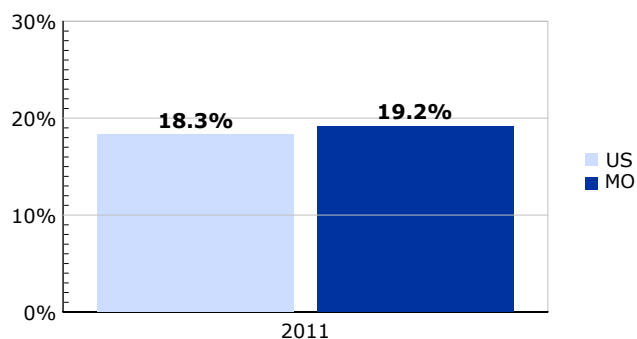


In Missouri, 19.2% of adults reported binge drinking in 2011 (3). Data were not available for binge drinking among high school students (4).



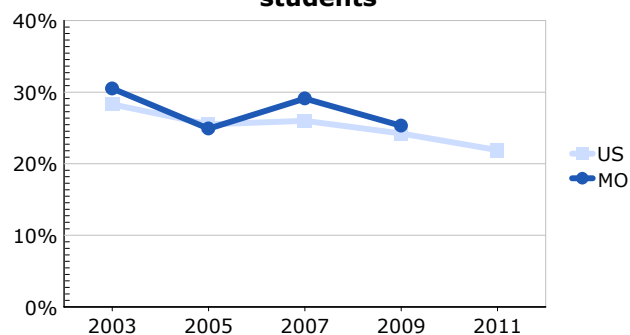
Excessive alcohol use cost the United States \$223.5 billion, or \$1.90 per drink consumed, in 2006 as a result of lost workplace productivity, healthcare expenses, and crime (5). In Missouri, excessive alcohol use cost \$4.4 billion, or \$1.86 per drink (6).

Binge drinking among adults



Source: Behavioral Risk Factor Surveillance System (3)

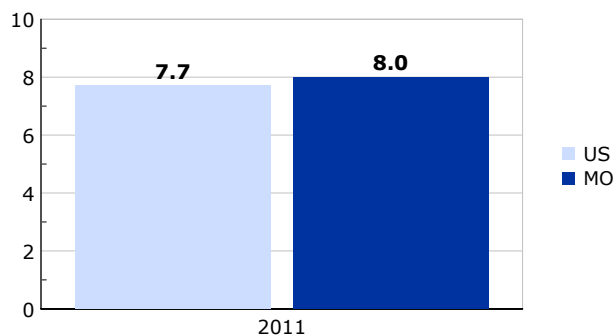
Binge drinking among high school students



Source: Youth Risk Behavior Surveillance System (4)

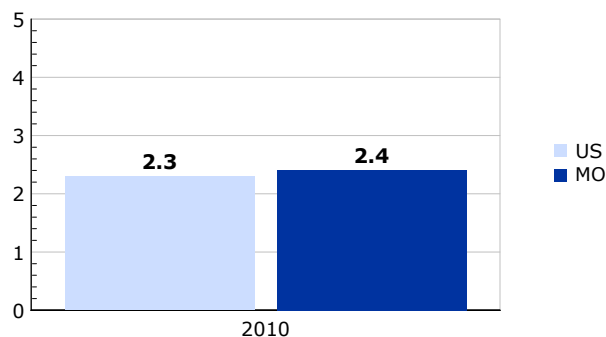
Note: Missouri data were not available for one or more years from the source used for this chart. Similar data may be available from another national or state source.

Binge drinking intensity among adults (in number of drinks per occasion)



Source: Behavioral Risk Factor Surveillance System (3)

Alcohol consumption per person aged ≥14 (in gallons)



Source: Alcohol Epidemiologic Data System (7)

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Excessive Alcohol Use

Missouri

Policy and Practice Solutions

This report focuses on policies and practices recommended by the Community Preventive Services Task Force on the basis of scientific studies supporting their effectiveness in reducing excessive alcohol consumption and related harms (8). These policies and practices include 1) increasing alcohol excise taxes (e.g., state taxes on beer, distilled spirits, and wine); 2) having commercial host (dram shop) liability laws; and 3) regulating alcohol outlet density (8–10). Other strategies supported by scientific evidence include avoiding further privatization of retail alcohol sales and providing adults (including pregnant women) with screening and brief intervention for excessive alcohol use (11,12). For information about why certain alcohol-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/alcohol/>).

Status of Policy and Practice Solutions in Missouri

State beer tax

As of January 1, 2012, Missouri's excise tax per gallon of beer was \$0.06 (13).

Task Force on Community Preventive Services recommendation: Increase alcohol excise taxes. Studies show that a 10% increase in the price of beer would likely reduce beer consumption by approximately 5% (8).



Rating	State beer tax
Green	≥\$1.00 per gallon
Yellow	\$0.50–\$0.99 per gallon
Red	\$0.00–\$0.49 per gallon

State distilled spirits tax

As of January 1, 2012, Missouri's excise tax per gallon of distilled spirits was \$2.00 (14).

Task Force on Community Preventive Services recommendation: Increase alcohol excise taxes. Studies show that a 10% increase in the price of distilled spirits would likely reduce distilled spirits consumption by approximately 8% (8).



Rating	State distilled spirits tax
Green	≥\$8.00 per gallon
Yellow	\$4.00–\$7.99 per gallon
Red	\$0.00–\$3.99 per gallon

State wine tax

As of January 1, 2012, Missouri's excise tax per gallon of wine was \$0.42 (15).

Task Force on Community Preventive Services recommendation: Increase alcohol excise taxes. Studies show that a 10% increase in the price of wine would likely reduce wine consumption by approximately 6% (8).



Rating	State wine tax
Green	≥\$2.00 per gallon
Yellow	\$1.00–\$1.99 per gallon
Red	\$0.00–\$0.99 per gallon

Commercial host (dram shop) liability laws

As of January 1, 2011, Missouri had commercial host liability with major limitations (16,17).

Task Force on Community Preventive Services recommendation: Presence of commercial host (dram shop) liability for sale or service to either underage patrons or intoxicated adults. Evidence shows these laws are associated with a reduction in alcohol-related harms, including a median 6.4% reduction in deaths from motor vehicle crashes (9).



Rating	State had
Green	Commercial host liability with no major limitations
Yellow	Commercial host liability with major limitations
Red	No commercial host liability

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Excessive Alcohol Use

Missouri

Local authority to regulate alcohol outlet density

As of January 1, 2012, Missouri had mixed alcohol retail licensing policies (18).

Task Force on Community Preventive Services recommendation: Use regulatory authority (e.g., through licensing and zoning) to limit alcohol outlet density. Evidence shows greater alcohol outlet density is associated with excessive drinking and related harms, including injuries and violence (10). Local control allows communities to better address density problems (18).



Rating	State had
Green	Exclusive local or joint state/local alcohol retail licensing
Yellow	Exclusive state alcohol retail licensing with local zoning authority or other mixed policies
Red	Exclusive state alcohol retail licensing

Simplified Rating System

A more detailed explanation of the rating system for excessive alcohol use is available at <http://www.cdc.gov/stltpublichealth/psr/alcohol/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations. Higher tax levels are rated green.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations. Intermediate tax levels are rated yellow.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations. Lower tax levels are rated red.

Indicator Definitions

State beer tax: The excise tax rate, in dollars per gallon, imposed by the state on beer containing 5% alcohol by volume. State beer excise tax does not include any additional taxes, such as those based on price rather than volume (e.g., ad valorem or sales taxes) that states may have implemented at the wholesale or retail level. State beer taxes ranged from \$0.02 to \$1.07 across states for which excise tax data were available.

State distilled spirits tax: The excise tax rate, in dollars per gallon, imposed by the state on distilled spirits containing 40% alcohol by volume. State distilled spirits excise tax does not include any additional taxes, such as those based on price rather than volume (e.g., ad valorem or sales taxes) that states may have implemented at the wholesale or retail level. State distilled spirits taxes ranged from \$1.50 to \$14.25 across states for which excise tax data were available. For states with different tax rates for distilled spirits sold off-sale (e.g., at liquor stores) and on-sale (e.g., at restaurants), the off-sale tax rate has been reported.

State wine tax: The excise tax rate, in dollars per gallon, imposed by the state on wine containing 12% alcohol by volume. State wine excise tax does not include any additional taxes, such as those based on price rather than volume (e.g., ad valorem or sales taxes) that states may have implemented at the wholesale or retail level. State wine taxes ranged from \$0.11 to \$2.50 across states for which excise tax data were available.




Commercial host (dram shop) liability laws: Laws that hold alcohol retailers liable for alcohol-attributable harms (e.g., injuries or deaths resulting from alcohol-related motor vehicle crashes) caused by patrons who were illegally sold or served alcohol because they were either intoxicated or under the minimum legal drinking age of 21 years at the time of sale or service. State commercial host liability laws are considered to have major limitations if they 1) cover underage patrons or intoxicated adults but not both, 2) require increased evidence for finding liability, 3) set limitations on damage awards, or 4) set restrictions on who may be sued.

Local authority to regulate alcohol outlet density: The extent to which a local government can implement zoning (land use) or licensing controls over the number of alcohol retailers (e.g., bars, restaurants, liquor stores) in its geographic area.

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16. Substance Abuse and Mental Health Services Administration. Report to Congress on the Prevention and Reduction of Underage Drinking. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2011.
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Public Health Problem

-  Diseases spread by a wide variety of contaminated foods continue to challenge the public health system. Bacteria, viruses, parasites, and chemicals can cause foodborne diseases, which can vary from mild to fatal (1). Robust surveillance for these diseases is essential for detecting outbreaks. It also provides critical information to food regulatory agencies and the food industry so that appropriate control and preventive measures can be implemented (2).
-  CDC estimates that each year, roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die due to foodborne diseases (3). Risk for infection and severity varies at different ages and stages of health (4).
-  Foodborne illness is costly. According to a 2012 study, 14 pathogens alone are estimated to cost \$14.1 billion in the United States per year. This includes medical costs (doctor visits and hospitalizations), loss due to premature death, and time lost from work (5).

Policy and Practice Solutions

This report focuses on select practices recommended by the Council to Improve Foodborne Outbreak Response on the basis of scientific evidence supporting their effectiveness in improving foodborne disease surveillance and detection activities (2). These practices include 1) increasing the speed of DNA fingerprinting using pulsed-field gel electrophoresis (PFGE) testing for all reported cases of Shiga toxin-producing *Escherichia coli* (*E. coli*) O157 and 2) increasing the completeness of PFGE testing of *Salmonella*. PFGE is a technique used to distinguish between strains of organisms at the DNA level. For information about why certain food safety-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/foodsafety/>).

Status of Policy and Practice Solutions in Missouri

Speed of pulsed-field gel electrophoresis (PFGE) testing of reported *E. coli* O157 cases

In 2011, Missouri tested 98.8% of *E. coli* O157 cases within 4 days (6).

CDC target: Testing of 90% of annual reported *E. coli* O157 cases within four days. The CDC Public Health Emergency Preparedness Cooperative Agreement established this and other national performance targets for food safety and provides federal funding to states and the District of Columbia. Performing DNA fingerprinting as quickly as possible for all Shiga toxin-producing *E. coli* improves detection of outbreaks. Rapid outbreak detection can help prevent additional cases and identify control and prevention measures for food regulatory agencies and the food industry (2).



Rating	Percentage of annual reported cases tested within four days:
Green	≥90.0%
Yellow	60.0%–89.9%
Red	<60.0%

Completeness of PFGE testing of reported *Salmonella* cases

In 2011, Missouri tested 100% of reported *Salmonella* cases (6,7).

Research and experts in the field agree that performing DNA fingerprinting of all *Salmonella* cases would improve detection of outbreaks (2).



Rating	Percentage of annual reported cases tested by PFGE:
Green	≥90.0%
Yellow	60.0%–89.9%
Red	<60.0%

Simplified Rating System

A more detailed explanation of the rating system for food safety is available at <http://www.cdc.gov/stltpublichealth/psr/foodsafety/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Speed of PFGE testing of reported *E. coli* O157 cases: The annual proportion of *E. coli* O157 PFGE patterns reported to CDC (i.e., uploaded into PulseNet, the CDC-coordinated national molecular subtyping network for foodborne disease surveillance) within four working days of receiving the isolate in the state or District of Columbia public health PFGE lab.

Completeness of PFGE testing of reported *Salmonella* cases: The annual proportion of *Salmonella* cases reported to CDC's National Notifiable Diseases Surveillance System with PFGE patterns uploaded into PulseNet.

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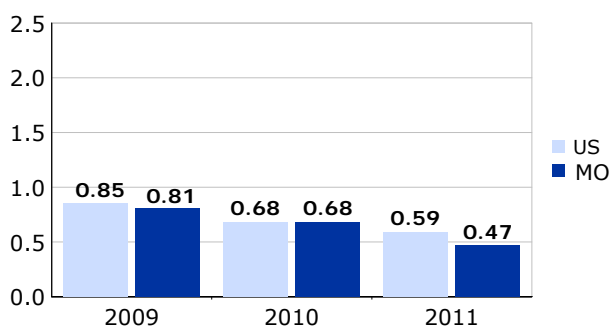
Healthcare-Associated Infections

Missouri

Public Health Problem

-  HAIs occur in all settings where patients receive medical care, including hospital and nonhospital settings, and are associated with increased illness and death. CDC estimates that each year in the United States, 1 in 20 hospital patients gets an HAI (1).
-  More than one million HAIs occur across all US healthcare settings combined. For example, *Clostridium difficile* infections kill 14,000 people in the United States each year (2).
-  HAIs result in an estimated \$30 billion in excess healthcare costs nationally each year (3).

Central line-associated bloodstream infection—standardized infection ratio



Source: National and State Healthcare-Associated Infections Standardized Infection Ratio Report (4)

What is a standardized infection ratio (SIR)?

The SIR is a summary measure used to track HAIs over time. It adjusts for the fact that each healthcare facility treats different types of patients. The SIR compares the number of infections reported to the National Healthcare Safety Network in 2011 to the number of infections that would be predicted based on national, historical baseline data:

$$\text{SIR} = \frac{\text{Observed \# of HAIs}}{\text{Predicted \# of HAIs}}$$

Policy and Practice Solutions

CDC recommends strategies for surveillance, prevention, and control of HAIs and antimicrobial resistance wherever health care is provided, including hospitals as well as ambulatory and long-term care facilities. CDC works closely with states and the District of Columbia on strategies to implement these recommendations. This collaborative effort among CDC, state and district health departments, and facilities will improve healthcare quality across the nation, working toward meeting the standards and targets set forth in the Department of Health and Human Service's *National Action Plan to Prevent Healthcare-Associated Infections* (5).

This report focuses on state health departments leading and participating in statewide HAI prevention efforts, a practice that helps improve existing prevention strategies by investing in both new and ongoing HAI prevention efforts and prioritizing HAIs as a serious public health concern. State health departments are encouraged to also engage in other practices that will provide actionable HAI data and lead to expanded HAI prevention. These include 1) state health departments validating data sent to CDC's National Healthcare Safety Network (NHSN), ideally including data on central line-associated bloodstream infections (CLABSIs); catheter-associated urinary tract infections (CAUTIs); and surgical site infections; and 2) working with CDC and other partners using NHSN data to target facilities and units most in need of consultation to prevent HAIs and antimicrobial resistance. For information about why certain HAI-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/hai/>).

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Healthcare-Associated Infections

Missouri

Status of Policy and Practice Solutions in Missouri

State health department participation in statewide HAI prevention efforts

In 2013, Missouri led or participated in broad prevention collaboratives to prevent multiple HAIs in acute care facilities, including CLABSIs, CAUTIs, and *C. difficile*, as well as HAIs in long-term care facilities (6).

Implementing HAI prevention strategies and tracking the impact of those strategies have led to improvements in clinical practice and medical procedures, development of evidence-based infection control guidance, and prevention successes (7).



Rating	State health department
Green	Led or participated in a broad prevention collaborative addressing at least one HAI
Yellow	N/A
Red	Did not participate in a broad prevention collaborative addressing HAIs

Simplified Rating System

A more detailed explanation of the rating system for HAIs is available at <http://www.cdc.gov/stltpublichealth/psr/hai/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Participation in statewide HAI prevention efforts: State health department participation in or leadership of broad prevention collaboratives addressing one or more of the following types of HAIs: central line-associated bloodstream infections, surgical site infections, catheter-associated urinary tract infections, ventilator-associated pneumonia, methicillin-resistant *Staphylococcus aureus*, and *C. difficile*.

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Heart Disease and Stroke

Missouri

Public Health Problem



Cardiovascular disease—including heart disease, stroke, and other vascular diseases—is the leading cause of death in the United States. Each year, nearly 800,000 people die from cardiovascular disease, accounting for one in every three deaths (1).

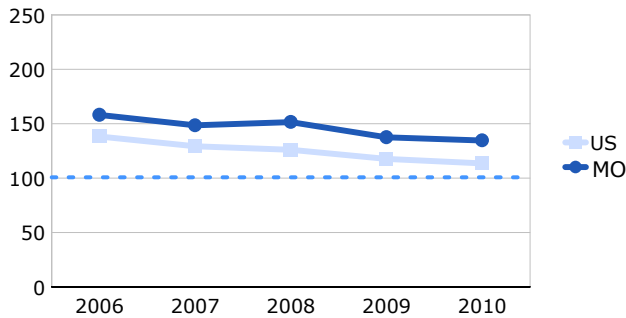


An estimated 67 million American adults have high blood pressure and 71 million American adults have high levels of low-density lipoprotein (LDL) cholesterol. These are two leading risk factors for heart disease and stroke (2,3).



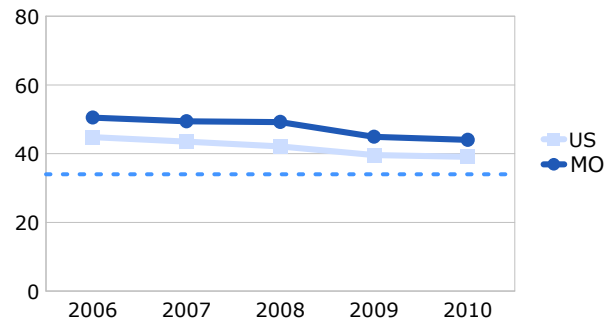
About one of every six healthcare dollars in the United States is spent on treating cardiovascular disease. Annual US cardiovascular disease costs exceed \$192.1 billion in direct medical expenses and \$312.6 billion when indirect expenses are included (4).

Coronary heart disease death rate (age-adjusted rate per 100,000 population)



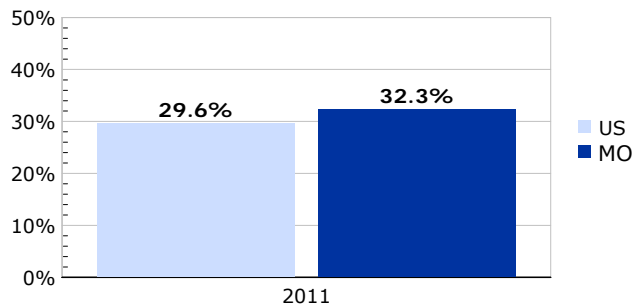
Source: National Vital Statistics System—Mortality (5)
Healthy People 2020 target: 100.8/100,000 (dotted blue line) (6)

Stroke death rate (age-adjusted rate per 100,000 population)



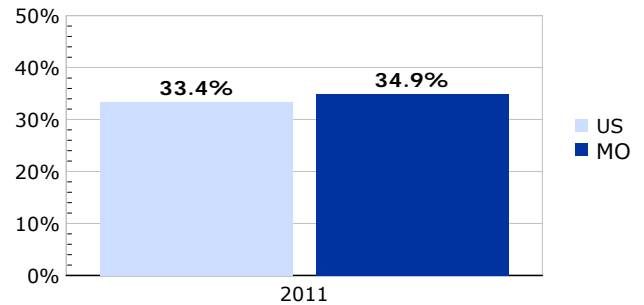
Source: National Vital Statistics System—Mortality (5)
Healthy People 2020 target: 33.8/100,000 (dotted blue line) (6)

Prevalence of self-reported hypertension (age-adjusted)



Source: Behavioral Risk Factor Surveillance System (BRFSS) (7)
Note: These rates were adjusted using the direct method and the 2000 standard US population (8).

Prevalence of self-reported high cholesterol (age-adjusted)



Source: Behavioral Risk Factor Surveillance System (BRFSS) (7)
Note: These rates were adjusted using the direct method and the 2000 standard US population (8).

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Heart Disease and Stroke

Missouri

Policy and Practice Solutions

This report focuses on policies and practices recommended by the Community Preventive Services Task Force, the US Surgeon General, and the Institute of Medicine on the basis of scientific studies supporting the policies' effectiveness in the management of heart disease and stroke risks (9–12). These policies and practices include 1) implementing electronic health records and 2) developing state policies that address collaborative drug therapy management, such as the use of pharmacists to facilitate collaborative practice agreements (10). Other strategies supported by scientific evidence and practice include promoting team-based care, establishing state-level policies for patient-centered medical homes, establishing stroke systems of care, and reducing sodium consumption at the community level. For information about why certain heart disease and stroke-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/heartandstroke/>).

Status of Policy and Practice Solutions in Missouri

Implementation of electronic health records

As of December 2012, 21.5% of office-based physicians in Missouri met criteria for meaningful use of electronic health records (12).

Research shows that electronic health records, when used with specific goals in mind (i.e., "meaningfully"), allow physicians, nurses, pharmacists, and other healthcare providers to proactively monitor and protect the health of their patients by tracking heart disease and stroke risk factors (13–15).

Note: This indicator reflects the percentage of physicians using electronic health records that can support 13 capabilities needed to meet Stage 1 Core Set objectives to demonstrate meaningful use. Other data from the federal Office of the National Coordinator for Health Information Technology reflect the percentage of physicians using a basic system, which has seven capabilities (16).

Rating	Percentage of office-based physicians meeting meaningful use criteria:
Green	31.0%–45.0%
Yellow	16.0%–30.9%
Red	0.0%–15.9%

Pharmacist collaborative drug therapy management (CDTM) policy

As of December 31, 2012, Missouri had a statewide pharmacist CDTM policy for all health conditions (17).

State policies such as CDTM laws, which authorize pharmacists to enter into collaborative practice agreements with prescribing providers, can increase medication adherence rates and improve health outcomes (e.g., lower blood pressure and LDL cholesterol, reduced hemoglobin A1c, fewer adverse drug events) (10).

Rating	CDTM policy
Green	Authorized pharmacists to collaborate for all health conditions
Yellow	Authorized pharmacists to collaborate but did not cover chronic diseases, or collaboration was limited to specified hospital, medical, or clinical practice settings
Red	Did not exist

Simplified Rating System

A more detailed explanation of the rating system for heart disease and stroke indicators is available at <http://www.cdc.gov/stltpublichealth/psr/heartandstroke/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Implementation of electronic health records: An electronic health record is a real-time, digital, patient-centered record that replaces paper charts. "Meaningful use" of electronic health records means meeting criteria that focus on such aspects as engaging patients in their own care, sharing information among healthcare organizations, and providing support for decisions on national high-priority conditions. It is hoped that if healthcare providers meet these criteria, "meaningful use" will lead to 1) creation of tools that measure healthcare quality to improve clinical and population health, 2) increased transparency and efficiency, 3) individuals empowered to access clinical information, and 4) more robust research data on health systems (18). Electronic health records should include clinical decision supports, such as alerts for elevated blood pressure and cholesterol levels based on laboratory results, to support guidelines-based clinical decision making.

Pharmacist collaborative drug therapy management policy: A state legislative, regulatory, or other written policy that authorizes qualified pharmacists working within the context of a defined protocol to perform patient assessments; order drug therapy-related laboratory tests; administer drugs; and select, initiate, monitor, continue, and adjust drug regimens (19).

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HIV

Missouri

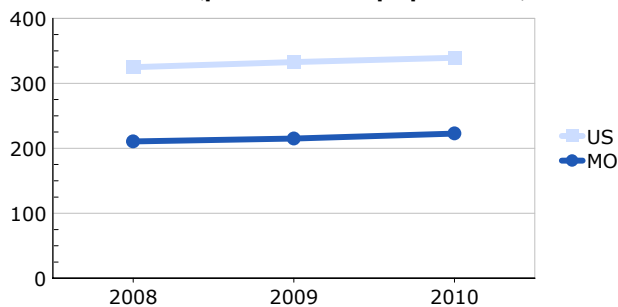
Public Health Problem

 CDC estimates that more than 1.1 million people in the United States are living with HIV, and 15.8% (about one in six) are not aware they are infected (1). In 2010, the White House released the first National HIV/AIDS Strategy for the United States to increase the nation's sense of urgency and to improve HIV prevention and care (2).

 In 2011, 531 people in Missouri were newly diagnosed with HIV infection (1). Twenty-eight percent of these people were diagnosed late in the disease and therefore were at increased risk for disease progression, death, and transmission of HIV to others. In 2010, more than 21,000 people with HIV were estimated to have died in the United States. Of these, CDC estimates that 300 were from Missouri (1).

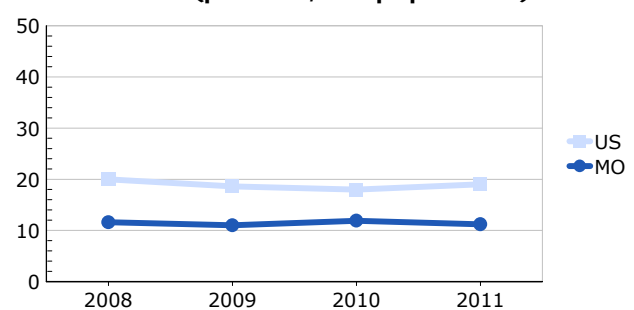
 The lifetime cost of medical care for a person with an early HIV diagnosis is about \$400,000 (3). This means that lifetime medical costs for the 531 Missouri residents newly diagnosed with HIV in 2011 could exceed \$212 million.

Estimated annual prevalence rate of persons living with diagnosed HIV aged 13 years and older (per 100,000 population)



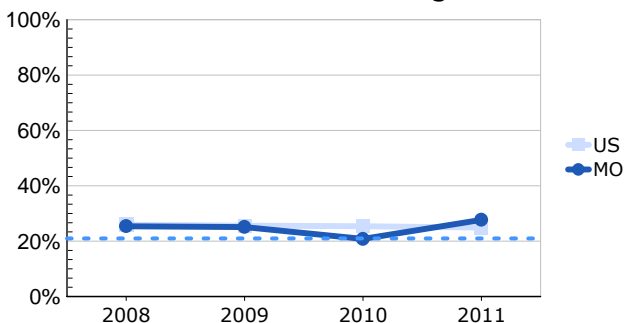
Source: National HIV Surveillance System (4)
Note: The y-axis for this graph varies by state.

Estimated annual rate of new HIV diagnoses among persons aged 13 years and older (per 100,000 population)



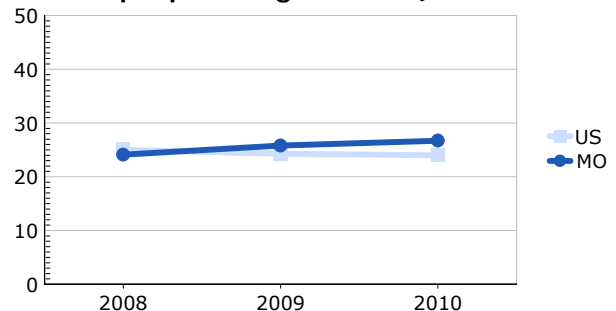
Source: National HIV Surveillance System (4)
Note: The y-axis for this graph varies by state.

Percentage of persons newly diagnosed with HIV who have late stage HIV



Source: National HIV Surveillance System (1)
Healthy People 2020 Target: 20.8% by 2015 (dotted blue line) (5)

Estimated annual death rate among persons diagnosed with HIV (per 1,000 people living with HIV)



Source: National HIV Surveillance System (1)

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HIV

Missouri

Policy and Practice Solutions

This report highlights policies that reflect recent scientific advances in HIV prevention and medical care. These advances create new opportunities for reducing new HIV infections and HIV-related illness and death. These policies are important state-level tools that further the goals of the 2010 National HIV/AIDS Strategy (2), including 1) facilitating state Medicaid reimbursement for HIV screening (7), 2) making state HIV testing laws compatible with the 2006 CDC HIV testing recommendations (6,10), and 3) reporting all CD4 lymphocyte and HIV viral load data to the state HIV surveillance program (7). For information about how and why certain HIV-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/hiv/>).

Status of Policy and Practice Solutions in Missouri

State Medicaid reimbursement for routine HIV screening

As of January 1, 2013, Medicaid reimbursed for routine HIV screening of adults aged 15 to 65 regardless of risk in Missouri (7). CDC and the US Preventive Services Task Force recommend that adolescents, adults, and pregnant women be screened for HIV, regardless of risk (6,8). All state and District of Columbia Medicaid programs cover medically necessary HIV testing (7). Reimbursement for routine screening, meaning broad, population-based HIV screening, in contrast with "medically necessary" testing and screening targeted at those at higher risk, increases the availability of this important preventive service for low-income populations (6,9).



Rating	State Medicaid plan
Green	Reimbursed for routine HIV screening
Yellow	N/A
Red	Did not reimburse for routine HIV screening

State HIV testing laws

As of July 2013, Missouri's HIV testing laws were consistent with CDC's 2006 HIV testing recommendations (10). CDC recommends that all people aged 13–64 years be tested for HIV (6). HIV testing enables individuals with HIV to become aware of their health status and to access medical care and treatment. Studies show that individuals diagnosed with HIV are less likely to transmit HIV to others (2). State and District of Columbia laws can facilitate access to HIV testing.



Rating	State HIV testing laws compared to CDC's HIV testing recommendations were
Green	Consistent with consent and counseling parameters
Yellow	N/A
Red	Inconsistent with consent or counseling parameters

Reporting of CD4 and viral load data to state HIV surveillance program

As of July 2013, Missouri required reporting of all CD4 and viral load results (including undetectable results) for surveillance purposes (10).

CD4 and HIV viral load data are critical to the medical care and health of people living with HIV. These data are also used to monitor progress toward achieving the goals of the National HIV/AIDS Strategy and to ensure that people living with HIV are linked to HIV medical care and retained in care (2).



Rating	State law, regulation, or directive
Green	Required reporting of all CD4 and HIV viral load data
Yellow	Required reporting of some but not all CD4 and HIV viral load data
Red	Did not require reporting of any CD4 and HIV viral load data

Simplified Rating System

A more detailed explanation of the rating system for HIV is available at <http://www.cdc.gov/stltpublichealth/psr/hiv/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

State Medicaid reimbursement for routine HIV screening: Medicaid reimbursement of healthcare providers for costs associated with routine HIV screening regardless of risk. Data reflect the most recent survey examining coverage as of January 2013.

State HIV testing laws: State laws governing HIV testing. Laws may or may not be consistent with key parameters of consent and counseling outlined in CDC's 2006 HIV testing recommendations (4). The consent parameters include opt-out (rather than opt-in) testing, inclusion of HIV testing consent as part of general medical consent forms (rather than HIV-specific consent forms), and permission to give consent orally. The counseling parameter includes not requiring prevention counseling prior to testing.

Reporting of CD4 and viral load data to HIV surveillance program: Existence of state statutes, regulations or directives that address the reporting of all CD4 values and all HIV viral load results (detectable and undetectable) to the state HIV surveillance program. HIV viral load and CD4 data among people with HIV infection are useful as indicators of program effectiveness. Viral load measures the amount of virus in a person's blood. CD4 results provide a measure of a person's immune function and are used for determining the stage of HIV infection. Among people with HIV, CD4 results are often used to monitor disease progression and to time clinical care, and both HIV viral load and CD4 results are used to assess response to treatment.

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Motor Vehicle Injuries

Missouri

Public Health Problem



Motor vehicle crashes are a leading cause of death in the United States for people aged 30 years or younger (1).

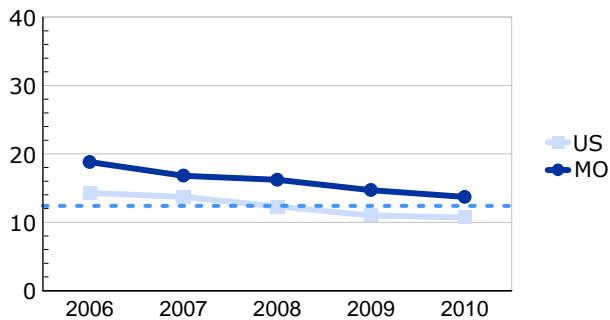


In 2011, motor vehicle crashes killed more than 32,000 people in the United States and injured more than 2.6 million (1,2).



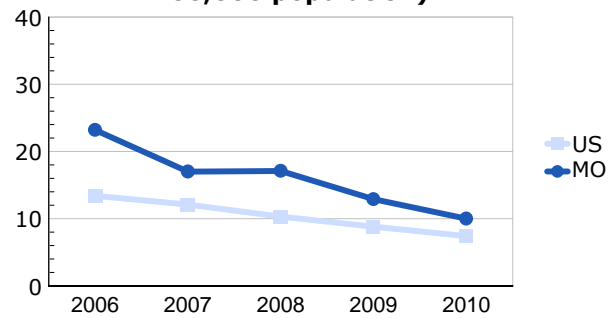
In 2005 alone, motor vehicle crashes cost Americans \$99 billion in medical care, rehabilitation, and lost wages (3).

Motor vehicle-related death rate (per 100,000 population)



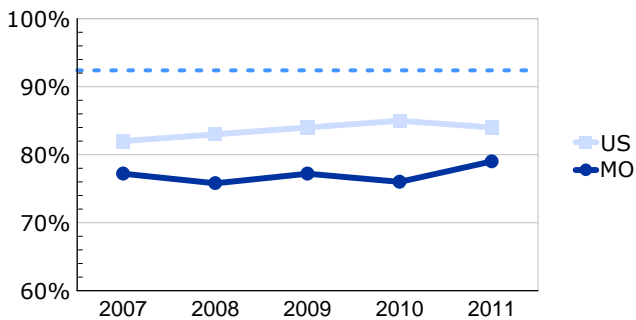
Source: National Highway Traffic Safety Administration (4)
Healthy People 2020 Target: 12.4/100,000 (dotted blue line) (5)

Motor vehicle-related death rate among drivers aged 15–20 years (per 100,000 population)



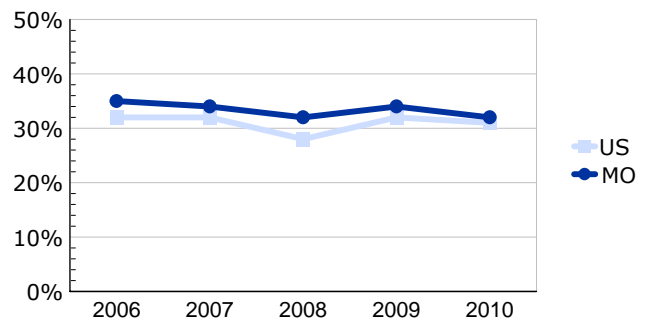
Source: National Highway Traffic Safety Administration (6)

Observed seat belt use



Source: National Highway Traffic Safety Administration (7)
Healthy People 2020 Target: 92.4% (dotted blue line) (5)

Percentage of crash-related deaths that involved alcohol-impaired drivers



Source: National Highway Traffic Safety Administration (8)

Policy and Practice Solutions

This report focuses on policies recommended by the Community Preventive Services Task Force and the National Highway Traffic Safety Administration on the basis of scientific studies supporting the policies' effectiveness in preventing or reducing crash-related injuries and deaths. These policies include 1) implementing primary seat belt laws, 2) improving laws mandating the use of appropriate child passenger restraints (e.g., car seats and booster seats) to cover children through at least age 8 years, 3) using comprehensive graduated driver licensing systems, and 4) requiring the use of ignition interlock devices for all convicted driving-while-intoxicated (DWI) offenders (9–16). For information about why certain motor vehicle injury-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/motorvehicle/>).

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Motor Vehicle Injuries

Missouri

Status of Policy and Practice Solutions in Missouri

Seat belt law

As of August 1, 2013, Missouri had a secondary enforcement seat belt law (17).

Task Force on Community Preventive Services recommendation: Primary enforcement seat belt laws are recommended on the basis of strong evidence that they are substantially more effective than secondary enforcement laws at reducing motor vehicle-related injuries and deaths (10,11). Rates of seat belt use are an average of 9–14 percentage points higher in primary enforcement states than in secondary states (10,11,18,19).



Rating	State had
Green	A primary enforcement seat belt law covering all seating positions
Yellow	A primary enforcement seat belt law covering only the front seats
Red	A secondary enforcement seat belt law or no law

Child passenger restraint law

As of August 1, 2013, Missouri required that all motor vehicle passengers aged 7 years or younger be in a car seat or booster seat (17).

Evidence shows that laws mandating the use of car seats and booster seats increase their use (12). Increasing the required age for car seat or booster seat use is an effective way to keep children protected. For example, among states that increased the required age to 7 or 8 years, car seat and booster seat use tripled (13).



Rating	State law covered
Green	Children through age 8 years
Yellow	Children through age 6 or 7 years only
Red	Children aged 5 years or younger only

Graduated driver licensing (GDL) system

As of August 1, 2013, Missouri fulfilled the recommended passenger limit restriction but not the recommended nighttime driving restriction (20).

Research indicates that more comprehensive GDL systems prevent more crashes and save more lives compared with less comprehensive GDL systems. Based on this evidence, the following five components are recommended for more comprehensive GDL systems: 1) minimum age of 16 years for a learner's permit, 2) mandatory holding period of at least six months for a learner's permit, 3) restrictions against nighttime driving between 10:00 pm and 5:00 am (or longer), 4) limit of zero or one for the number of young passengers without adult supervision, and 5) minimum age of 18 years for full licensure (9,14,15).



Rating	State policy
Green	Required all five of the GDL components
Yellow	Required both nighttime driving and young passenger limits but not all five components
Red	Lacked either the nighttime driving or young passenger limits, or both

Ignition interlock law

As of August 1, 2013, Missouri required ignition interlocks for convicted repeat DWI offenders (21).

Task Force on Community Preventive Services recommendation: Use of ignition interlocks is recommended for all people convicted of alcohol-impaired driving on the basis of strong evidence of interlocks' effectiveness in reducing re-arrest rates while the interlocks are installed (16).



Rating	State had
Green	A law requiring ignition interlocks for all convicted DWI offenders (i.e., offenders with blood alcohol concentrations [BAC] ≥ 0.08 g/dL, which includes both first-time and repeat offenders)
Yellow	A law requiring ignition interlocks for convicted repeat DWI offenders or first-time offenders with a particularly high BAC (e.g., BAC ≥ 0.15 g/dL)
Red	No law requiring ignition interlocks for any convicted DWI offenders

Simplified Rating System

A more detailed explanation of the rating system for motor vehicle injuries is available at <http://www.cdc.gov/stltpublichealth/psr/motorvehicle/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Seat belt law: A primary enforcement seat belt law allows police to stop a vehicle solely because a driver or passenger is not wearing a seat belt. A secondary enforcement seat belt law requires police to have another reason for stopping a vehicle before citing a driver or passenger for not buckling up. The most comprehensive policies are primary seat belt laws that cover all occupants, regardless of where they are sitting. Some states have primary laws that cover only the front seat occupants.

Child passenger restraint law: A law that requires child passengers to travel in appropriate child passenger restraints, such as car seats or booster seats, until adult seat belts fit them properly. All 50 states and the District of Columbia have some form of child passenger restraint laws; however, the ages covered vary.

Graduated driver licensing (GDL) system: Policy that helps new drivers gain experience under low-risk conditions by granting driving privileges in stages. As teens move through GDL stages, they are given additional privileges, such as driving unsupervised or with a passenger.

Ignition interlock law: A law that mandates the use of ignition interlocks for drivers convicted of DWI. An ignition interlock is a device that analyzes a driver's breath and prevents the vehicle from starting if alcohol is detected.

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Prevention Status Report | 2013

Nutrition, Physical Activity, and Obesity

Missouri

Public Health Problem

 Poor diet and physical inactivity contribute to many serious and costly health conditions, including obesity, heart disease, diabetes, some cancers, unhealthy cholesterol levels, and high blood pressure (1,2).

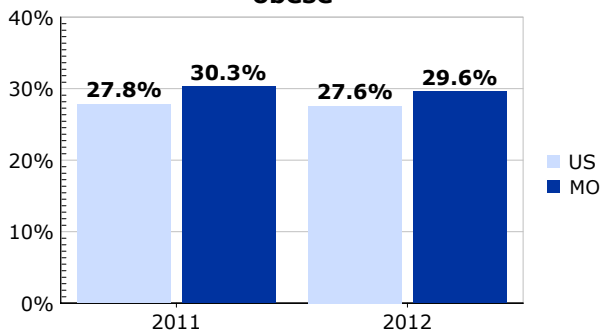
Obesity is associated with increased blood pressure; unhealthy cholesterol levels; chronic diseases such as heart disease, diabetes, some cancers, and osteoarthritis; complications of pregnancy; and premature death (3).

Children who are not breastfed are at greater risk for various health problems, including childhood infections and obesity (4).

 During 2009-2010, based on data from the National Health and Nutrition Examination Survey, approximately 17% of children and adolescents and 36% of adults were obese (5).

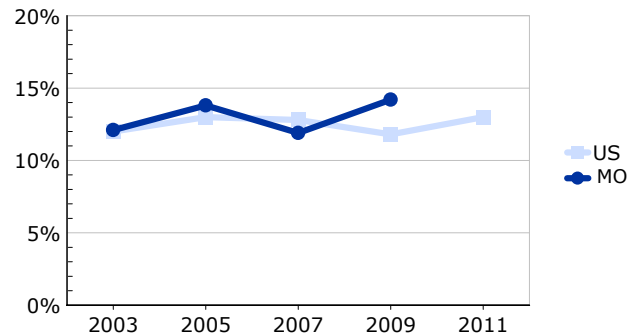
 US medical costs associated with adult obesity were approximately \$147 billion in 2008 (6).

Percentage of adults who were obese



Source: Behavioral Risk Factor Surveillance System (7)

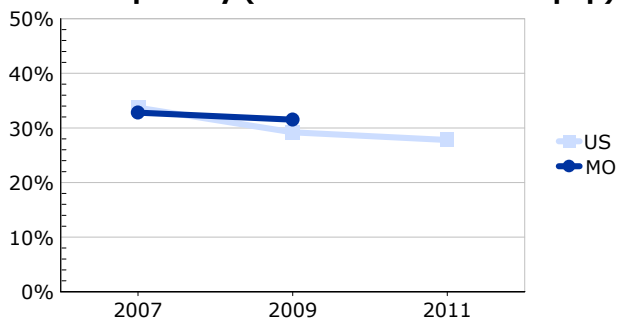
Percentage of high school students who were obese



Source: Youth Risk Behavior Surveillance System (8)

Note: Missouri data were not available for one or more years from the source used for this chart. Similar data may be available from another national or state source.

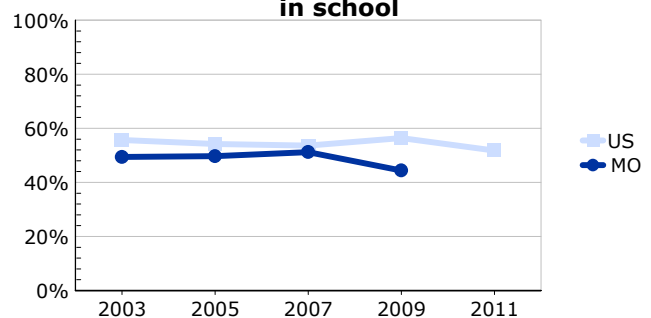
Percentage of high school students who drank a can, bottle, or glass of soda or pop at least one time per day (excludes diet soda or pop)



Source: Youth Risk Behavior Surveillance System (8)

Note: Missouri data were not available for one or more years from the source used for this chart. Similar data may be available from another national or state source.

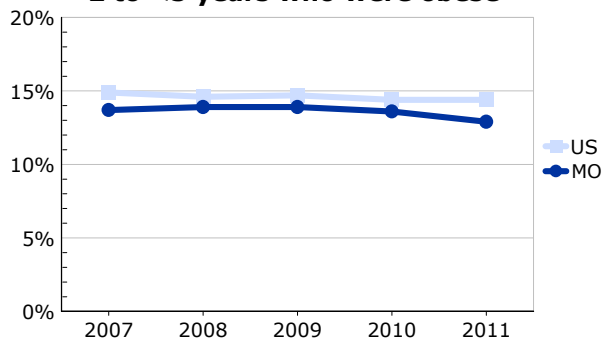
Percentage of high school students who attended physical education classes on one or more days in an average week when they were in school



Source: Youth Risk Behavior Surveillance System (8)

Note: Missouri data were not available for one or more years from the source used for this chart. Similar data may be available from another national or state source.

Percentage of low-income children aged 2 to <5 years who were obese



Source: Pediatric Nutrition Surveillance System (9)

Policy and Practice Solutions

This report focuses on policies and practices recommended by the Institute of Medicine, Community Preventive Services Task Force, US Surgeon General, CDC, and other expert bodies. The recommendations are based on expert judgment or evidence from scientific studies that the policies and practices can improve diet, increase breastfeeding, increase physical activity, or reduce obesity (10–17). These policies and practices include 1) implementing nutrition standards to limit the availability of less nutritious foods and beverages in schools, 2) implementing nutrition standards for foods and beverages in government facilities, 3) including nutrition and physical activity standards in state regulations of licensed childcare facilities, 4) establishing physical education time requirements in high schools, and 5) promoting evidence-based practices that support breastfeeding in hospitals and birth centers.

Additional strategies to prevent obesity and promote healthy eating, physical activity, and breastfeeding have been supported by scientific evidence or expert judgment (11–15,17). For information about why certain indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/npao/>).

Status of Policy and Practice Solutions in Missouri

Secondary schools not selling less nutritious foods and beverages

In 2012, 34.5% of secondary schools in Missouri did not sell the following items in vending machines or at school stores, canteens, or snack bars: candy, baked goods that are not low in fat, salty snacks that are not low in fat, soda pop, or fruit drinks that are not 100% juice (18).

In addition to providing school meals, many schools offer foods and beverages in other venues, such as school stores, canteens, snack bars, vending machines, and classrooms. The Institute of Medicine recommends nutrition standards for such foods and beverages (10), and CDC recommends that schools limit the availability of less nutritious foods and beverages and ensure that “only nutritious and appealing foods and beverages are provided in all food venues in schools” (15).

Rating	Percentage of secondary schools that did not sell less nutritious foods and beverages in selected venues:
Green	≥66.6%
Yellow	50.0%–66.5%
Red	<50.0%



Prevention Status Report | 2013

Nutrition, Physical Activity, and Obesity

Missouri

State nutrition standards policy for foods and beverages sold or provided by state government agencies

In 2012, Missouri did not have a nutrition standards policy for foods and beverages sold or provided by state government agencies (19).

The Institute of Medicine recommends that government agencies implement “strong nutrition standards for all foods and beverages sold or provided through the government” and ensure “that healthy options are available in all places frequented by the public” to reduce the availability of less healthful foods and beverages and increase the availability of more healthful options (11). For purposes of this report, strong policies are those that meet the following criteria: 1) apply to at least 90% of government agencies in the state executive branch; 2) cover all food purchased, contracted, distributed, or sold by government agencies in the state executive branch; 3) provide quantifiable standards for foods or nutrients (e.g., set a maximum for the amount of sodium a food item can include); and 4) set minimal standards that limit sodium content, fat content, and the availability of high-calorie, low-nutrient foods and beverages.



Rating	State nutrition standards policy
Green	Met all criteria
Yellow	Met some but not all criteria
Red	Did not exist

Inclusion of nutrition and physical activity standards in state regulations of licensed childcare facilities

In 2012, Missouri state regulations for licensed childcare facilities included 10.6% of the 47 components of standards for infant feeding, nutrition, physical activity, and screen time (20).

The Institute of Medicine has recommended including specific requirements related to physical activity, sedentary activity, and child feeding in childcare regulations (12). The American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education have identified 47 components that childcare regulatory agencies and childcare providers should include in standards for infant feeding, nutrition, physical activity, and screen time in licensed childcare settings (16).



Rating	Percentage of components included in state regulations:
Green	≥80.0%
Yellow	70.0%–79.9%
Red	<70.0%

State physical education time requirement for high school students

In 2012, Missouri did not have a physical education time requirement for high school students (21).

The Community Preventive Services Task Force recommends the implementation of quality physical education programs that increase the length of, or activity levels in, school-based physical education classes (13). This recommendation is based on strong evidence of such programs’ effectiveness in improving physical activity levels and physical fitness among school-aged children and adolescents (13). CDC and the National Association for Sport and Physical Education recommend that high school students receive at least 225 minutes of physical education per week (15,17). States and the District of Columbia can help increase physical activity among high school students by setting minimum requirements for time spent in physical education.



Rating	State had
Green	A mandate for minutes per week that high school students must participate in physical education
Yellow	N/A
Red	No mandate for minutes per week that high school students must participate in physical education

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Nutrition, Physical Activity, and Obesity

Missouri

Average birth facility score for breastfeeding support

In 2011, Missouri had a birth facility score of 66 out of a possible 100 (22).

The US Surgeon General recommends that maternity care practices throughout the United States fully support breastfeeding (14). A review of evidence by the Cochrane Collaboration found that institutional changes in maternity care practices effectively increased breastfeeding initiation and duration rates (23). CDC's National Survey of Maternity Practices in Infant Nutrition and Care assesses and scores the extent to which hospitals and birth centers implement multiple evidence-based strategies that support breastfeeding (22).



Rating	State average birth facility score for breastfeeding support:
Green	≥80.0%
Yellow	70.0%–79.9%
Red	<70.0%

Simplified Rating System

A more detailed explanation of the rating system for nutrition, physical activity, and obesity is available at <http://www.cdc.gov/stltpublichealth/psr/npao/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations or is widely implemented.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations or is not as widely implemented as at the green rating level.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations or is not widely implemented.

Indicator Definitions

Secondary schools not selling less nutritious foods and beverages: Percentage of middle schools and high schools that did not allow students to purchase less nutritious foods and beverages from vending machines, school stores, canteens, and snack bars. For a school to be identified as not selling less nutritious foods and beverages, the school principal had to respond "no" to each item when asked whether students could purchase the following five items: 1) chocolate candy; 2) other kinds of candy; 3) salty snacks that are high in fat, such as regular potato chips; 4) cookies, crackers, cakes, pastries, or other baked goods that are high in fat; and 5) soda pop or fruit drinks that are not 100% juice. Data were provided for 45 states and the District of Columbia and represented only those states that participated in the survey and had an overall school response rate of at least 70% (18).

State nutrition standards policy for foods and beverages sold or provided by state government agencies: The presence of statewide nutrition standards for select foods or nutrients that cover foods and beverages purchased, contracted, distributed, or sold by government agencies in the state executive branch. Information was obtained using a search of the *Westlaw* database (19). State policies captured are statutes, regulations, and administrative guidance. Data were updated November 2012. The search results did not indicate whether a policy was implemented, only whether it existed.

Inclusion of nutrition and physical activity standards in state regulations of licensed childcare facilities: Inclusion of 47 recommended components of standards in regulations for infant feeding, nutrition, physical activity, and screen time in childcare settings (16). State regulations were considered to have included a component if the regulation fully met the requirements of the component across all childcare entities licensed by the state.

State physical education time requirement for high school students: A state mandate for minimum number of minutes per week that high school students must participate in physical education (21).

Average birth facility score for breastfeeding support: The state birth facility score for breastfeeding represents the average score across participating birth facilities in a state. Each participating birth facility, based on its response to a self-administered survey, was scored on multiple evidence-based practices that support breastfeeding across seven categories: 1) labor and delivery, 2) breastfeeding assistance, 3) mother-newborn contact, 4) newborn feeding practices, 5) breastfeeding support after discharge, 6) nurse/birth attendant breastfeeding training and education, and 7) structural and organizational factors related to breastfeeding (22). The total score can range from 0 to 100, with a higher score representing more support. The national average score across all states was 70.

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Public Health Problem

⚠️ Opioid pain relievers—also called prescription painkillers—such as oxycodone, hydrocodone, fentanyl, and hydromorphone are responsible for three-fourths of all prescription drug overdose deaths and caused more than 16,600 deaths in the United States in 2010 (1). Nationally, deaths involving opioids have more than quadrupled since 1999 (1). The drug overdose mortality rate is age adjusted and includes all drugs and all intents.



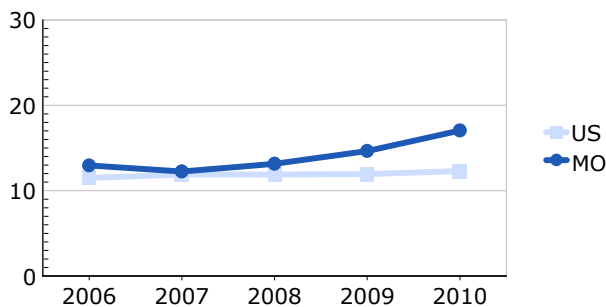
The sharp rise in opioid overdose deaths closely parallels an equally sharp increase in the prescribing of these drugs. Opioid pain reliever sales in the United States quadrupled from 1999 to 2010 (2). Similarly, the substance abuse treatment admission rate for opioid abuse in 2010 was seven times higher than in 1999 (3).

The severity of the epidemic varies widely across US states and regions. For example, the state with the highest drug overdose death rate has a rate more than eight times that of the state with the lowest rate. Missouri's overdose death rate for 2010 (17.0 per 100,000 population) is above the national rate (12.4 per 100,000 population) (1).



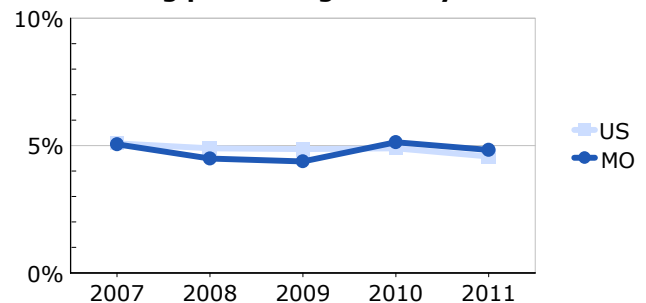
In addition to the human costs, the epidemic of prescription drug overdose imposes a major financial toll. Nonmedical use of opioid pain relievers—use without a prescription or simply for the feeling or experience the drug causes—costs US insurance companies up to \$72.5 billion annually in healthcare expenditures (4). The epidemic also imposes substantial costs on state Medicaid programs. A 2009 Government Accountability Office report found that in 2006–2007, roughly 65,000 Medicaid beneficiaries in five states incurred over \$60 million in drug costs related to "doctor shopping" for controlled substance prescriptions (i.e., patients obtaining controlled substances from multiple healthcare practitioners without prescribers' knowledge of other prescriptions) (5).

Drug overdose death rate (age-adjusted per 100,000 population)



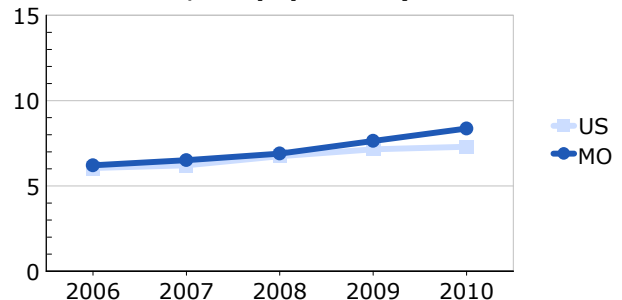
Source: National Vital Statistics System (1)
 Note: These rates were adjusted using the direct method and the 2000 standard US population (6).

Prevalence of nonmedical use of prescription pain relievers in the past year among persons aged ≥12 years



Source: National Survey on Drug Use and Health (7)

Kilograms of morphine equivalents of opioid pain relievers sold (per 10,000 population)



Source: Automation of Reports and Consolidated Orders System (8)

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Prescription Drug Overdose

Missouri

Policy and Practice Solutions

The United States is in the early stages of addressing the prescription drug overdose epidemic. CDC and other agencies are working to identify and evaluate interventions to reduce overdose deaths. This report focuses on policies and practices supported by emerging evidence, expert consensus, and/or extensive review of the primary drivers of the epidemic, including 1) implementing state pain clinic laws and 2) implementing prescription drug monitoring programs that follow best practices. For information about why certain prescription drug overdose-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/prescriptiondrug/>).

Status of Policy and Practice Solutions in Missouri

State pain clinic law

As of July 2013, Missouri had no pain clinic law (9).

Pain clinic laws hold promise for stopping the most egregious overprescribing practices (10). A pain clinic law is rated green in the PSR if the law requires state oversight and contains other requirements concerning ownership and operation of pain management clinics, facilities, or practice locations.



Rating	State had
Green	A pain clinic law meeting selected criteria
Yellow	N/A
Red	No pain clinic law

Prescription drug monitoring programs (PDMPs) following selected best practices

As of July 2013, Missouri had no PDMP (11).

Prescription drug monitoring programs show early signs of changing providers' prescribing practices and can yield valuable information for healthcare providers and regulatory agencies. The selected best practices for PDMPs are 1) providing prescribers and dispensers access to PDMPs, 2) interoperability with the PDMP of at least one other state or the District of Columbia, and 3) proactively reporting findings to law enforcement and regulatory agencies (12).



Rating	State PDMP
Green	Followed all three selected best practices
Yellow	Followed one or two of the selected best practices
Red	Did not follow any of the selected best practices, was authorized but was not yet operating, or did not exist

Simplified Rating System

A more detailed explanation of the rating system for prescription drug overdose is available at <http://www.cdc.gov/stltpublichealth/psr/prescriptiondrug/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions


State pain clinic law: A law that requires state oversight of pain management clinics or describes specific registration, licensure, or ownership requirements for pain management clinics.


PDMP following selected best practices: A state prescription drug monitoring program that tracks the prescribing and dispensing of controlled substances and that follows selected best practices articulated by the Brandeis University PDMP Center of Excellence. These best practices include 1) providing prescribers and dispensers access to PDMPs, 2) interoperability with a PDMP of at least one other state or the District of Columbia, and 3) proactively reporting findings to law enforcement and regulatory agencies (12).

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Public Health Problem

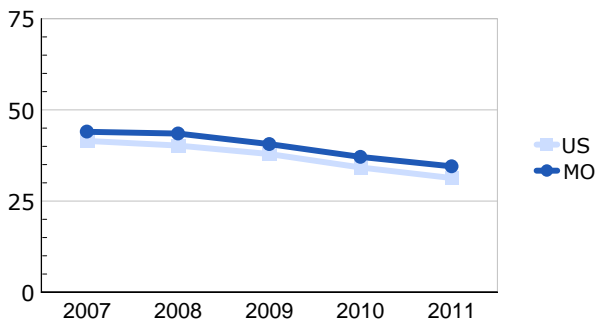
 Each year in the United States, about 750,000 women under age 20 become pregnant (1). In 2011 in Missouri, 6,944 teens aged 15–19 years gave birth (2).

 In 2011, young women of color—particularly Hispanic and African-American females aged 15–19 years—were disproportionately likely to give birth, with national birth rates of 49.6 and 47.3 per 1,000 population, respectively (3).

Teen mothers are more likely to experience negative social outcomes, including lower rates of school completion and reduced earnings, than teens who do not have children. The children of teenaged mothers are more likely to achieve less in school, experience abuse or neglect, have more health problems, be incarcerated at some time during adolescence, and give birth as a teenager (4).

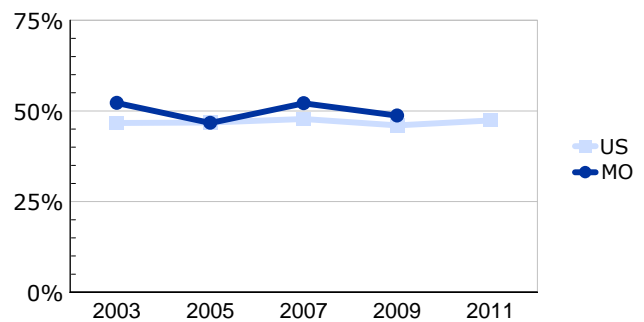
 The annual costs of teen childbearing in 2008 were \$10.9 billion in the United States and \$215 million in Missouri (5).

Birth rate among females aged 15–19 years (per 1,000 population)



Source: National Vital Statistics System—Births (6)

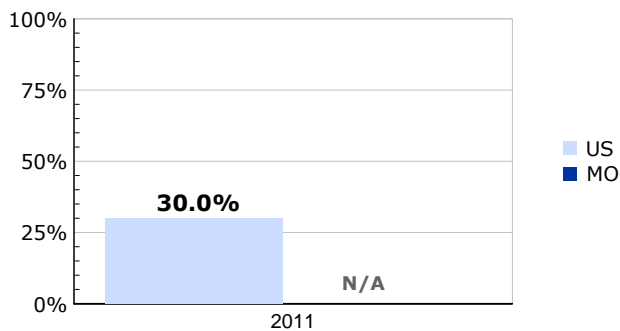
Proportion of high school students who ever had sexual intercourse



Source: Youth Risk Behavior Surveillance System (7)

Note: Missouri data were not available for one or more years from the source used for this graph. Similar data may be available from another national or state source.

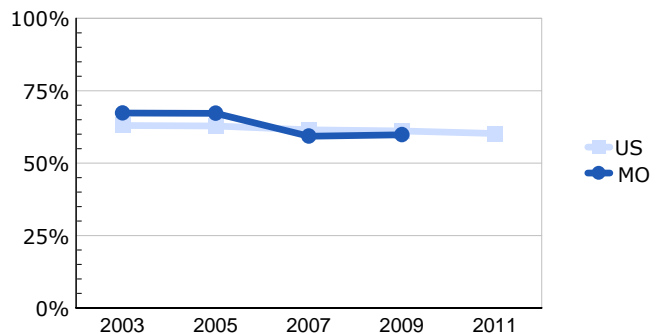
Proportion of currently sexually active female high school students who used birth control pills, any injectable birth control, any birth control ring or implant, or intrauterine device before last sexual intercourse



Source: Youth Risk Behavior Surveillance System (7)

Note: Missouri data were not available for one or more years from the source used for this chart. Similar data may be available from another national or state source.

Proportion of currently sexually active high school students who used a condom during last sexual intercourse



Source: Youth Risk Behavior Surveillance System (7)

Note: Missouri data were not available for one or more years from the source used for this graph. Similar data may be available from another national or state source.

Policy and Practice Solutions

This report focuses on expanding eligibility for Medicaid family planning services to the income eligibility level for pregnancy-related services and to include women younger than age 18 years, either by amending the Medicaid waiver or by converting to the State Plan Amendment available through the Centers for Medicare and Medicaid Services, or by expanding the full Medicaid program (8–12). This policy is consistent with the US Department of Health and Human Services’ National Prevention Strategy recommendations to expand access to contraceptive services and with a *Healthy People 2020* objective to “increase the number of states that set the income eligibility level for Medicaid-covered family planning services to at least the same level used to determine eligibility for Medicaid-covered, pregnancy-related care” (13,14).

Other strategies supported by scientific evidence include providing comprehensive sexual health education for adolescents, using positive youth development approaches, and improving parent-child communication and parental monitoring of youth behavior (15–17). For information about why Medicaid family planning expansion was selected as an indicator, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/teenpregnancy/>).

Status of Policy and Practice Solutions in Missouri

Expansion of state Medicaid family planning eligibility

As of August 2013, Missouri had expanded Medicaid coverage of family planning services to include adults with incomes up to 185% of the federal poverty level, the state’s level for pregnancy-related Medicaid coverage, but coverage did not extend to teens under age 18 years (18,19).

Healthy People 2020 target: Increase the number of states that set the income eligibility level for Medicaid coverage of family planning services to at least the same level used to determine eligibility for Medicaid coverage of pregnancy-related care (14,18,19).



Rating	State Medicaid family planning eligibility
Green	Was income-based, met the income eligibility level for pregnancy-related care, and covered all women, including teens
Yellow	Was limited, was not income-based, did not meet the eligibility level for pregnancy-related services, and/or excluded some teens
Red	Had not been expanded

Simplified Rating System

A more detailed explanation of the rating system for teen pregnancy is available at <http://www.cdc.gov/stltpublichealth/psr/teenpregnancy/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

Expansion of state Medicaid family planning eligibility (waiver or state plan amendment): State expansion of eligibility for Medicaid coverage of family planning services to include teens under age 18 and to be set at the eligibility level for pregnancy care (this level varies by state and the District of Columbia). This expansion is achieved by 1) securing approval (officially known as a “waiver” of federal policy) from the Centers for Medicare and Medicaid Services, 2) amending the state Medicaid plan with a State Plan Amendment (i.e., a permanent change to the state’s Medicaid program), or 3) expanding the full state Medicaid program.

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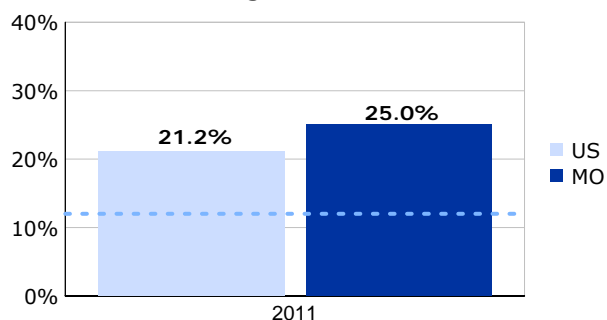
Tobacco Use

Missouri

Public Health Problem

-  Tobacco use is the leading cause of preventable death in Missouri and the United States overall. Smoking harms nearly every organ in the body and causes cancer, heart disease, stroke, respiratory illness, and many other health problems (1).
-  During 2007–08, in the United States, 37% of adult nonsmokers and 54% of children aged 3–11 years were exposed to secondhand smoke (2).
-  Smoking and exposure to secondhand smoke result in \$96 billion in medical expenditures and \$97 billion in lost productivity annually in the United States. In Missouri, smoking causes \$2.24 billion in personal healthcare expenditures and \$2.51 billion in lost productivity annually (3).

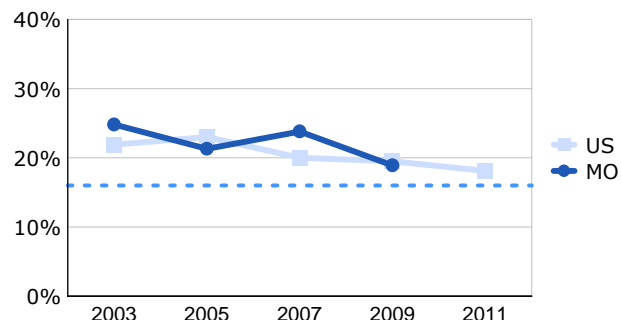
Proportion of adults who smoke cigarettes



Sources: Behavioral Risk Factor Surveillance System (4), National Health Interview Survey (5)

Healthy People 2020 target: 12.0% (dotted blue line) (6)

Proportion of high school students who smoke cigarettes



Source: Youth Risk Behavior Surveillance System (7)

Healthy People 2020 target: 16.0% (dotted blue line) (6)

Note: Missouri data were not available for one or more years from the source used for this graph. Similar data may be available from another national or state source.

Policy and Practice Solutions

This report focuses on policies and practices recommended by the Institute of Medicine, World Health Organization, Community Preventive Services Task Force, US Surgeon General, and Centers for Disease Control and Prevention on the basis of scientific studies supporting the policies' effectiveness in preventing or reducing tobacco use (8–11,13,14). These policies and practices include 1) increasing state cigarette excise taxes, 2) establishing statewide smoke-free policies, and 3) sustaining tobacco control program funding. Other strategies also supported by scientific evidence include hard-hitting media campaigns and systemic changes to increase access to and use of cessation services. For information about why certain tobacco-related indicators were selected, and for links to additional data and resources, visit the CDC website (<http://www.cdc.gov/stltpublichealth/psr/tobacco/>).

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Tobacco Use

Missouri

Status of Policy and Practice Solutions in Missouri

State cigarette excise tax

As of June 30, 2013, Missouri's cigarette excise tax was \$0.17 per pack, compared with the highest state tax of \$4.35 (range = \$0.17–\$4.35) (15).

Healthy People 2020 target: An increased excise tax in all states and the District of Columbia by \$1.50 per pack by the year 2020 (6). This increase would generate millions of dollars in revenue annually, prevent more children from starting to smoke, help smokers quit, save lives, and save millions in long-term healthcare costs (16,17).



Rating	State excise tax was
Green	\$2.00 per pack or above
Yellow	\$1.00–\$1.99 per pack
Red	Less than \$1.00 per pack

Comprehensive state smoke-free policy

As of June 30, 2013, Missouri had no statewide smoke-free policy covering workplaces, restaurants, or bars (15).

Healthy People 2020 target: A statewide ban on smoking in public places and worksites in all states and the District of Columbia (6). Studies have shown that smoke-free policies reduce secondhand smoke exposure, help smokers quit, and reduce heart attack and asthma hospitalizations (10,11,17–21).



Rating	State smoke-free policy covered
Green	Workplaces, restaurants, and bars
Yellow	Two of the three locations
Red	One or none of the locations

Funding for tobacco control

As of fiscal year 2010, Missouri allocated 3.3% of the CDC-recommended funding for tobacco control (\$2.4 million of \$73.2 million) (22).

CDC recommendation: Tobacco control funding at 100% of CDC's recommended annual investment in all states and the District of Columbia (14). States that have made larger investments in comprehensive tobacco control programs have seen cigarette sales drop more than twice as much as sales in the United States as a whole, and smoking prevalence among adults and youth has declined faster as spending for tobacco control programs has increased (14,23,24).



Rating	Funding level was at
Green	100% or more of CDC recommendation
Yellow	50.0%–99.9% of CDC recommendation
Red	Less than 50% of CDC recommendation

Simplified Rating System

A more detailed explanation of the rating system for tobacco use is available at <http://www.cdc.gov/stltpublichealth/psr/tobacco/>.

Green

The policy or practice is established in accordance with supporting evidence and/or expert recommendations.

Yellow

The policy or practice is established in partial accordance with supporting evidence and/or expert recommendations.

Red

The policy or practice is either absent or not established in accordance with supporting evidence and/or expert recommendations.

Indicator Definitions

State cigarette excise tax: The amount of state excise tax, in dollars, on a pack of 20 cigarettes.

Comprehensive state smoke-free policy: A state law that prohibits smoking in all indoor areas of private workplaces, restaurants, and bars, with no exceptions (25).

Funding for tobacco control: The amount of funding allocated for state tobacco control activities, including state and federal dollars. Note: Data provided for fiscal year 2010 funding do not include nongovernmental funding sources or federal funds from the American Recovery and Reinvestment Act Prevention Wellness Initiative announced in March 2010. Additionally, the amount allocated per fiscal year does not always match the amount spent during the year.

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