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# **Where Do We Stand?**

## **Characteristics of Missouri Tobacco Users**

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## Preface

In 2003, the Missouri Department of Health and Senior Services (MDHSS) conducted a study to collect county-specific data on tobacco use and chronic disease prevalence. It proved a valuable resource for public health professionals by providing more regionally focused data. However, the sample size of 15,000 Missouri adults limited analysis at the county level for many areas.

To address the need for updated and more comprehensive county-level data, and to establish baseline measures for the Tobacco Prevention and Cessation Initiative, the Missouri Foundation for Health (MFH) partnered with MDHSS in 2007 to expand on the previous data collection activities. Specifically, MFH and MDHSS aimed to determine county-level prevalence of behavioral risk factors, chronic diseases and conditions, and preventive practices among adults age 18 and older in Missouri.

The resulting 2007 Missouri County-level Study (CLS) was implemented by the University of Missouri's Health and Behavioral Risk Research Center, which conducted telephone interviews with Missouri adults between February 2007 and April 2008. The 2007 CLS resulted in 49,513 completed interviews.

Summary results of the 2007 CLS, as well as comparisons to the 2003 data, are available at <http://www.dhss.mo.gov/CommunityDataProfiles>. Information regarding the design and methodology of the 2007 CLS is available at [http://www.dhss.mo.gov/CLS/Design\\_Methodology](http://www.dhss.mo.gov/CLS/Design_Methodology).

## 2007 Missouri County-level Study Report Series

The Center for Tobacco Policy Research (CTPR) at Washington University in St. Louis conducted further analyses of the 2007 CLS data to explore specific topics in greater depth. This report is the first in a series that describes the results of CTPR's analyses. These reports will be disseminated to tobacco control stakeholders throughout Missouri to support programmatic efforts and inform strategic planning of tobacco control activities. The reports are available at <http://ctpr.wustl.edu/reports>. This report presents results from the first analysis, which sought to highlight characteristics of Missouri tobacco users and gather knowledge about tobacco use among Missourians. For more information about the CLS report series, contact Sarah Shelton at [sshelton@wustl.edu](mailto:sshelton@wustl.edu) or 314.935.3723.

## What Are the Characteristics of Missouri Tobacco Users?

In 2007, 23.2% of adult Missourians were current cigarette smokers (Table 1). Four percent of Missouri adults used smokeless tobacco products (e.g., chewing tobacco or snuff) and 6.1% used other tobacco products (e.g., cigars, pipes, bidis, kreteks or clove cigarettes). Smoking prevalence in Missouri during 2007 was higher than that of the United States (19.8%).<sup>1</sup> The prevalence of smokeless tobacco use was slightly higher in Missouri (3.9%) than in the United States overall (3.3%).<sup>2</sup>

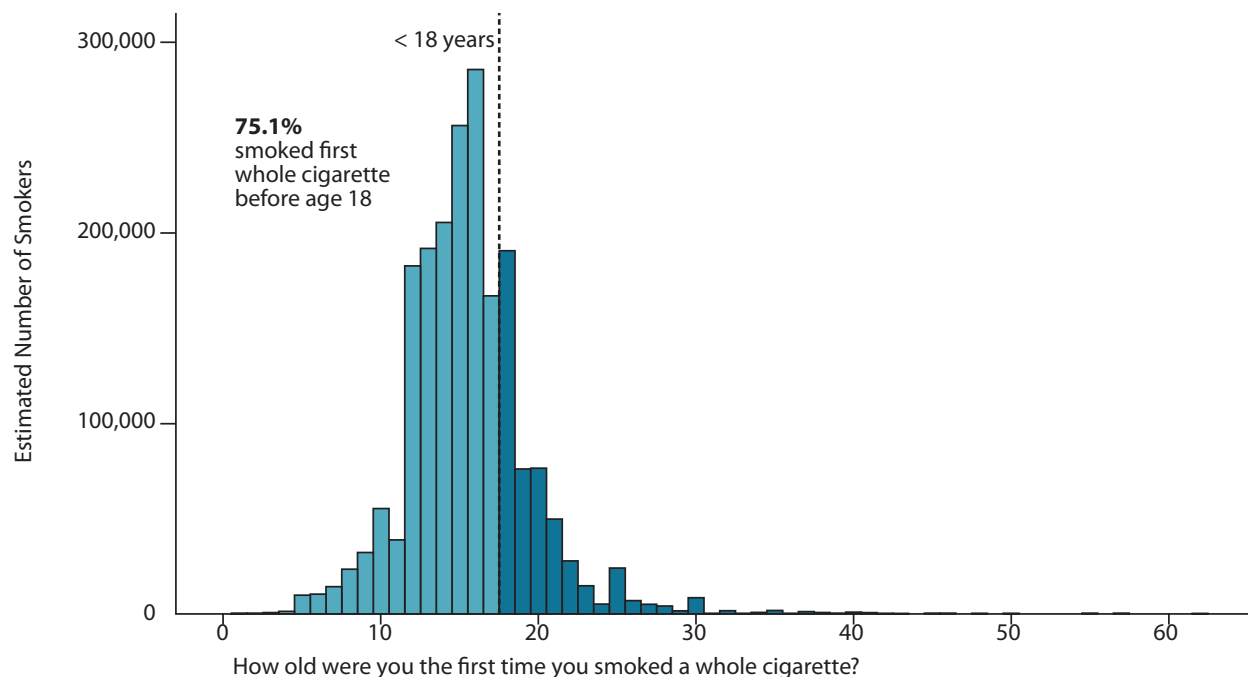
**Table 1. Tobacco Use among Missourians Compared with the U.S. in 2007**

Behavior	Missouri	United States
Current cigarette smokers	23.2%	19.8%
Former cigarette smokers	25.1%	21.5%
Current smokeless tobacco* users	3.9%	3.3%
Current users of other tobacco products†	6.1%	Not Available

\*chewing tobacco or snuff      †cigars, pipes, bidis, kreteks or clove cigarettes

A significant majority (75.1%) of ever smokers (i.e., current or former smokers) in Missouri smoked their first whole cigarette before the age of 18 (Figure 1). The average age for a first whole cigarette was 16. Across the United States in 2007, most (59.7%) new smokers were under 18 when they first smoked cigarettes<sup>3</sup>, although this is much lower than the percentage in Missouri. Among recent initiates aged 12 to 49 in the U.S., the average age of first cigarette use was 17 years in 2007.<sup>3</sup>

**Figure 1. The majority of smokers in Missouri smoked their first whole cigarette before the age of 18.**



Missouri smokers, on average, smoke 18 cigarettes (nearly a pack) every day. They smoked an average of 15 days during the 30 days prior to the survey (Table 2). Heavy smokers, or those who smoke 25 or more cigarettes a day, constitute 16.3% of the smoking population in Missouri.

The next section of this report examines tobacco use behaviors across several demographic and socioeconomic characteristics, including: gender, age, race/ethnicity, income level, health insurance coverage, and geographic area.

**Table 2. Characteristics of Missouri Cigarette Smokers in 2007**

Characteristics of Missouri Cigarette Smokers	Percentage
Smoked first whole cigarette before age of 18	75.1%
Heavy Smoker (25 or more a day)	16.3%
Moderate Smoker (15 – 24 a day)	49.6%
Light smoker (14 or fewer a day)	34.1%
Average	
Age first time smoked whole cigarette	16
Number of cigarettes smoked per day	18
Number of days smoked during previous 30 days	15

## Gender

Approximately the same percentage of males and females in Missouri were current cigarette smokers in 2007 (23.4% and 23.1%, respectively). This trend differs from the United States overall, where the smoking prevalence is higher among males (22.3%) than females (17.4%).<sup>1</sup> However, in Missouri, a significantly greater number of males compared to females used smokeless tobacco products (8.1% versus 0.1%) and other tobacco products (11.2% versus 1.4%), which follows national trends.<sup>2</sup> Additionally, Missouri males on average:

- Smoke more cigarettes a day (20 versus 16 for females), and
- Smoked their first whole cigarette at a younger age (15 years versus 16 years for females).

## Age

Of the Missouri population aged 25 to 34, 29% were current smokers in 2007. This is a significantly higher percentage than other age groups. This trend is similar to that of the United States overall, where the smoking prevalence is higher in younger age groups than older age groups.<sup>1</sup> Even though more 25- to 34-year-old Missourians smoked than other age groups, they smoked fewer cigarettes a day, and smoked on fewer of the previous 30 days, than most of their older counterparts. For example, Missourians aged 65 and older had the lowest smoking prevalence of all age groups (10.1%), but they smoked more cigarettes a day than 25- to 34-year-olds (18 cigarettes a day compared to 16, respectively).

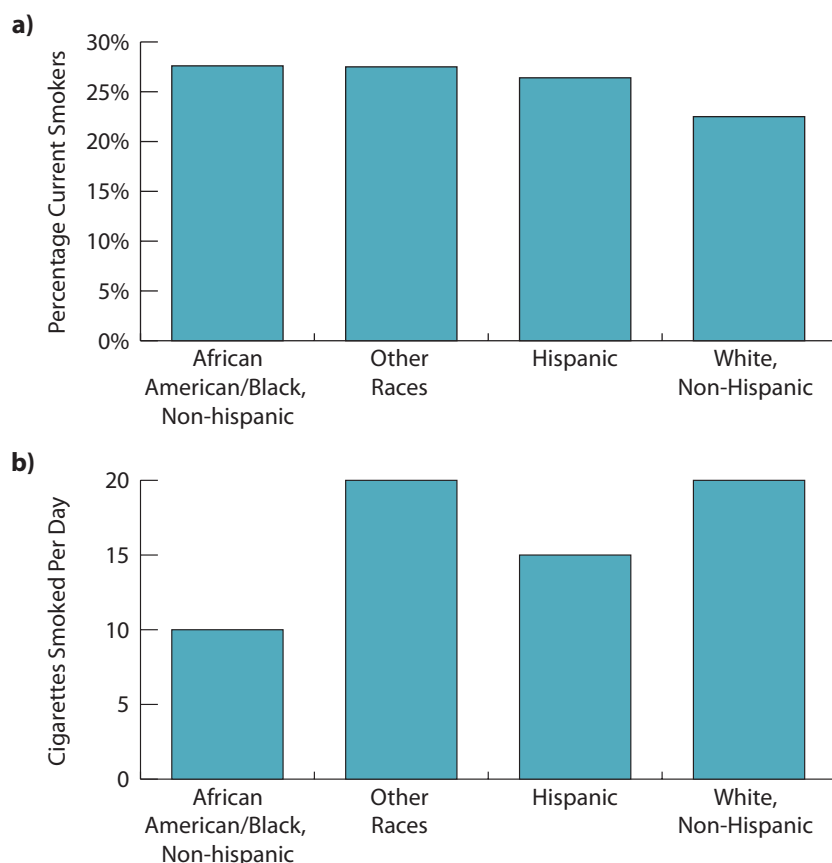
## Race/Ethnicity

Overall, smoking prevalence in Missouri differs significantly by race and ethnicity. White, non-Hispanic Missourians have a significantly lower smoking prevalence than African Americans,

Hispanics and other races. However, due to the racial/ethnic composition of Missouri, the majority (82%) of smokers in Missouri are non-Hispanic whites.

The largest difference in smoking prevalence was between African American and white Missourians (27.6% and 22.5%, respectively). However, white, non-Hispanic Missourians started smoking at a younger average age than non-Hispanic African Americans, and were heavier smokers (Figure 2). On average, white Missourians began smoking at the age of 15 and smoked 20 cigarettes a day, while African Americans began smoking at 17 and smoked 10 cigarettes a day. The large smoking prevalence difference (5.1%) between African American and white Missourians does not follow the United States trend for these populations. In the United States overall during 2007, the smoking prevalence for African Americans (19.8%) and whites (20.2%) was about the same.<sup>1</sup>

**Figure 2. While a significantly higher percentage of African American Missourians smoked in 2007 than whites (a), white Missouri residents smoked more cigarettes a day (b).**



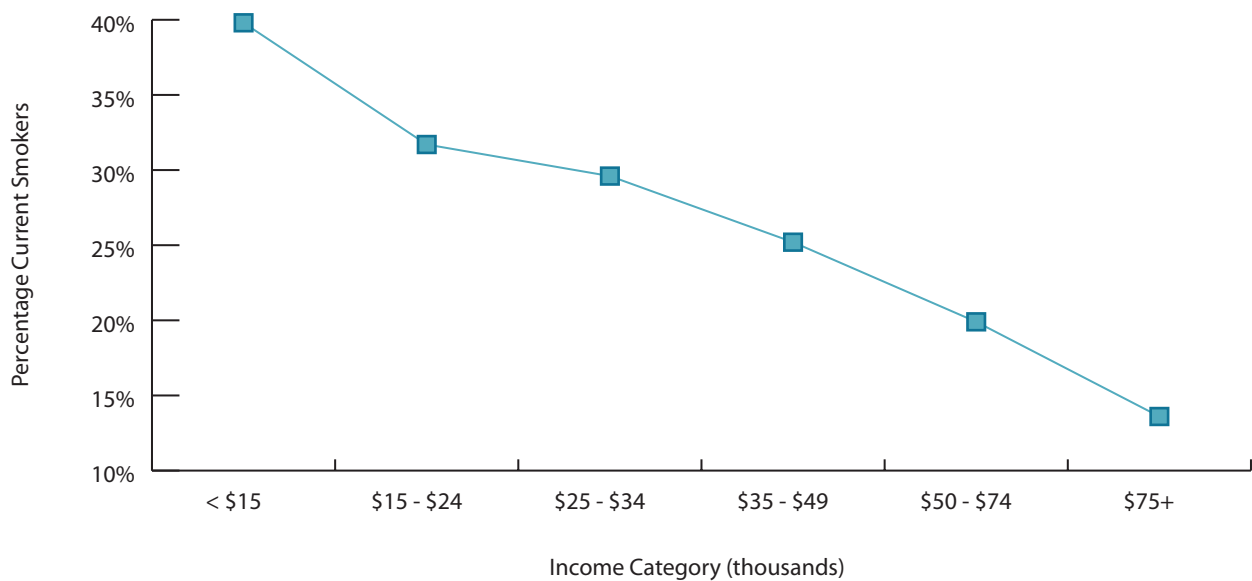
## Income

A marked difference in smoking prevalence exists across income levels in Missouri. Smoking rates are more than twice as high in the lowest income category than in the highest income category (Figure 3). Additionally, individuals with higher incomes smoked fewer cigarettes a day and smoked on a fewer number of days in the previous month than

did those with lower incomes. The trend in the United States overall was similar in 2007. Twenty-five percent of individuals with a family income less than \$35,000 were current smokers, while only 12.9% of individuals with a family income of \$100,000 or more were current smokers.<sup>1</sup>

Contrary to Missouri trends related to cigarette use and income, the use of smokeless tobacco products was significantly higher in the highest income category than in the lowest. For example, 2.4% of Missourians earning less than \$15,000 a year used smokeless tobacco products compared to 4.8% earning \$50,000 to \$74,999.

**Figure 3. Smoking rates are more than twice as high in the lowest income category than in the highest.**



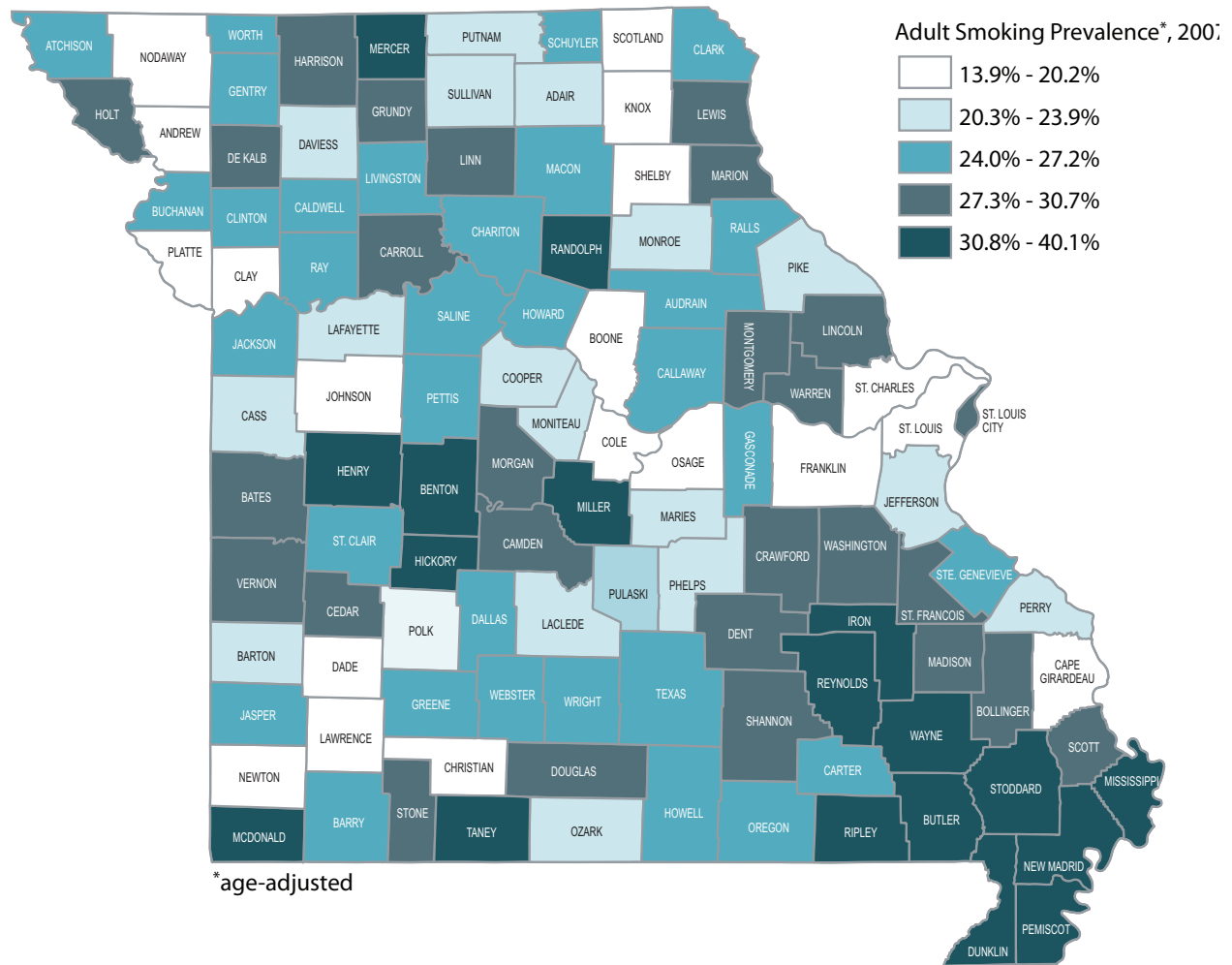
## Health Insurance Coverage

Missourians with no health insurance have a significantly higher smoking prevalence than those with health insurance (40.5% versus 20.3%, respectively). Across the United States in 2007, 32.7% of uninsured residents were current smokers.<sup>1</sup> In Missouri, a significantly higher percentage of individuals covered by Medicaid were current smokers (47.8%) compared to those with private health insurance (19.5%), Medicare (16.1%), or another type of health insurance (5.4%).

## Geographic Area

The percentage of current smokers in 2007 varied across Missouri, with a notably higher percentage of smokers concentrated in the southeast region (Figure 4). While most regions, as defined by MDHSS, had small differences in their smoking prevalence, the most significant difference in smoking prevalence was between the southeast region (27.8%) and all other regions. In regard to smokeless tobacco use, the Kansas City and St. Louis metropolitan regions had the lowest prevalence, while the northwest and southeast regions had the highest.

**Figure 4. The percentage of current smokers in 2007 varied across the state, with a significantly higher percentage of smokers concentrated in the southeast region.**



## What Do Missourians Know about Tobacco Use?

Overall, Missourians believe that smoking cigarettes causes several important health conditions. However, compared to nonsmokers, a significantly lower percentage of cigarette smokers believe that smoking causes heart attack, colon cancer, stroke, low birth weight or impotence (Table 3). Additionally, a significantly smaller percentage of Missourians aged 55 and older believe smoking causes heart attack, stroke, low birth weight or impotence when compared to their younger counterparts.

**Table 3. Missourians understand the connection between cigarette smoking and the most important health risks.**

Percentage who believe smoking causes...	All Missourians	Missouri Smokers	Missouri Non-smokers
Low birth weight	87.2	79.1	89.7
Heart attack	79.2	69.3	82.2
Stroke	75.5	63.6	79.1
Impotence	53.9	37.7	58.9
Colon cancer	36.0	24.4	39.7

## What Does All of This Mean?

Missouri continues to have higher tobacco use prevalence rates than most of the nation. Compared to the United States overall, more residents in Missouri smoke cigarettes and use smokeless tobacco products. Missouri would benefit from increased state support for tobacco prevention and cessation programs. Increases in funding for state tobacco control programs reduce tobacco use<sup>4-5</sup> and health care expenditures.<sup>6</sup>

Based on the findings of this report, the following are recommendations for the Missouri tobacco control community:

### Implement evidence-based strategies targeted at youth and young adults, including policy changes.

Current Missouri smokers tried their first cigarette and began regularly smoking at a younger average age compared to the United States overall. In particular, a larger percentage of Missouri smokers tried their first cigarette before the age of 18 than did U.S. smokers in general. Additionally, smoking prevalence is higher among younger age groups than older age groups; Missourians aged 25 to 34 had the highest smoking prevalence of all age groups in 2007. Much of this population could benefit from tobacco control programs and policies during and prior to college. Evidence-based guidelines recommend implementing school-based policies and interventions as part of a comprehensive effort, including policy changes that affect youth and young adults (e.g., higher tobacco product prices, community-wide smoke-free policies).<sup>7,8</sup>

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### **Increase access to cessation services for Missouri residents who are disproportionately affected by tobacco use.**

Similar to the United States as a whole, individuals with lower incomes in Missouri are more likely to smoke than those with higher incomes. Additionally, Missourians without health care coverage and those covered by Medicaid are more likely to smoke than Missourians with health care coverage from a private insurer, Medicare, or some other source. Smokers who have lower incomes and are underinsured or uninsured would greatly benefit from increased access to cessation services, including free nicotine replacement therapy. Evidence-based guidelines recommend reducing out-of-pocket costs and other barriers to tobacco use cessation services.<sup>7-9</sup>

### **Consider populations and geographic areas with disproportionate tobacco use prevalence when planning tobacco control programs and policies.**

In the United States overall, males and females, and whites and African Americans, have fairly similar levels of smoking prevalence. In Missouri, there are gender, racial, and geographic differences among smokers:

- More females smoke than males.
- More African Americans smoke than whites.
- More Missourians in the southeast region smoke.
- More Missourians in the northwest and southeast regions use smokeless tobacco.

Tobacco control policies and programs that focus on these specific populations will help to eliminate tobacco use disparities in Missouri.

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