

INTRODUCTION

The *Status Report on Missouri's Alcohol and Drug Abuse Problems* is issued annually by the Missouri Department of Mental Health, Division of Alcohol and Drug Abuse. The report provides policy makers, planners, funding sources, service providers, and researchers with a set of quantifiable measures on consumption of alcohol, tobacco, and other drugs and the consequences of substance abuse. It also presents estimates of the need for substance abuse treatment and summarizes the services provided by Missouri Division of Alcohol and Drug Abuse (ADA) programs.

Data is provided at several geographic levels. The largest variety of data is available for statewide Missouri. Tables and charts show Missouri trends for the most current year available and several prior years. Survey data compares national and Missouri rates of alcohol, tobacco, and illicit drug use for specific age groups. Substance abuse consequences and treatment data are provided in multi-year statewide tables and three-year tables for the ADA planning regions and service areas. These geographic units are illustrated on the map in the Appendix of this report. Three-year tables are also provided for Missouri's 114 counties and the city of St. Louis, arranged according to federal FIPS county code. In all of the tables, a data element represents a calendar year unless specified as "FY" for state fiscal year (July 1 through June 30) or "FFY" for federal fiscal year (October 1 through September 30). Throughout the report, numerals enclosed in brackets [] in the narratives, charts, and tables correspond to the references listed in the Appendix.

Federal and state laws and enforcement regulations that restrict youth access to tobacco have generated much interest in recent years. One section of the report summarizes the current status of tobacco regulation, merchant education and compliance, and youth tobacco use in Missouri.

PROBLEM OVERVIEW AND ECONOMIC ESTIMATES

Alcohol and drug abuse and addiction have broad negative impacts for society, and additional specific consequences for substance abusers and their families. Everyone is vulnerable to death and injury caused by impaired drivers, alcohol and drug related workplace accidents, and drug related crime. Substance abuse also generates a huge economic cost burden shared by all citizens. A nationwide study estimated that 12.5 percent of Missouri's state government spending in 1998 dealt with problems related to alcohol and drug abuse [49]. Family members of substance abusers experience emotional turmoil, domestic violence, child abuse, exposure to dangerous drugs, separation, and economic deprivation. Substance abusers are at risk for illnesses, injury, death, arrest, incarceration, unemployment, and loss of family.

Alcohol Abuse Costs

The economic costs of alcohol abuse in the United States were an estimated \$184.6 billion in 1998 and rise each year [60]. These costs include loss of productivity due to alcohol related illnesses and deaths, fetal alcohol syndrome, motor vehicle crashes, fire destruction, health care, and research. Some of these costs are financed through taxation, while others are borne individually through higher health and casualty insurance premiums, property damage losses, and lower profits and wages. Missouri's portion of the 1998 cost is conservatively estimated to be \$3.7 billion.

Drug Abuse Costs

Societal drug abuse costs were projected at \$160.7 billion in 2000, and Missouri's share is estimated to be more than \$3.2 billion [77]. As with alcohol abuse, these drug abuse costs are absorbed by governments and individuals. Compared to the alcohol costs, drug costs reflect higher criminal justice expenditures and the prenatal exposure of infants to illicit drugs.

Smoking Costs

The Centers for Disease Control and Prevention (CDC) estimates that, up through 1999, cigarette smoking caused 440,000 premature deaths per year, including 35,000 heart disease deaths attributable to second-hand smoking. Missouri had 9,986 smoking related deaths in 2003 [19]. Smoking related illnesses and deaths result in annual economic losses of \$157 billion nationwide, with an estimated \$3.45 spent on medical costs and a loss of \$3.73 in productivity for each pack of cigarettes consumed [57]. Approximately 800 million packs are sold annually in Missouri [44]. Based on the impact estimates, they create smoking related health and productivity losses of more than \$5.7 billion per year.

CONSUMPTION DATA

Household interviews, telephone surveys, and school surveys are typically used to estimate the prevalence of alcohol, tobacco, and other drug use—the number of people who are using these substances at a defined point in time. These instruments may also include questions and items which identify substance dependence and abuse, particularly when it is important to estimate the number of individuals needing substance abuse services. Standard surveys do not easily reach some groups, such as non-household adults and non-student adolescents. Additional studies or social indicators might be used to augment the estimates to account for these excluded populations.

National Survey on Drug Use and Health

The National Survey on Drug Use and Health (NSDUH) and its predecessor, the National Household Survey on Drug Abuse, are conducted in all states to provide national and state-level data. The table on page 32 presents national trends for adolescents and adults ages 12 and older. Page 33 provides rates for Missouri residents by age group for current use of several drugs, and for beliefs regarding drug use. The state samples have been combined into averaged two-year periods (2000/2001 and 2002/2003) to improve the reliability of the estimates. U.S. rates for the 2002/2003 period are presented for comparison with the state rates [67, 68, 69]. Some of the survey results are discussed below and in other sections of this report.

Alcohol: Among the population of adolescents and adults age 12 and older, Missouri's estimated percentage of current drinkers (those consuming alcohol within 30 days prior to the survey) increased from 46.7 percent in 2000/2001 to 53.2 percent in 2002/2003, compared to 50.5 percent nationally. Binge drinking—defined in the NSDUH as consuming at least five drinks on a single drinking occasion at least once in the preceding 30 days—increased from 20.0 percent to 24.6 percent, also higher than the U.S. rate of 22.8 percent. Among adolescents 12-17 years of age, current alcohol use increased from 18.0 percent in 2000/2001 to 19.7 percent in 2002/2003, somewhat higher than the 2002/2003 national rate of 17.7 percent. Binge drinking among Missouri adolescents was 12.6 percent in 2002/2003 compared to the U.S. rate of 10.7 percent. Current alcohol use among young adults in the 18-25 age group increased in Missouri from 59.7 percent to 64.5 percent. Nationally, current alcohol use in this age group was 60.9 percent in 2002/2003. Binge drinking among young adults in Missouri also increased, climbing from 38.8 percent in 2000/2001 to 43.9 percent in 2002/2003 and surpassing the U.S. rate of 41.3 percent. Among Missouri's population over age 25, current alcohol use increased from 48.4 percent in 2000/2001 to 55.9 percent in 2002/2003, also exceeding the national rate of 53.2 percent. Binge drinking in this age group increased in Missouri from 17.9 percent to 22.8 percent, compared to 21.2 percent nationwide.

Marijuana: According to the NSDUH, Missouri has a higher overall rate of current marijuana use than the national rate of 6.2 percent, increasing from 4.4 percent in 2000/2001 to 6.8 percent in 2002/2003. Marijuana use remained virtually unchanged for Missouri's adolescent

population at 7.4 percent—lower than the national rate of 8.0 percent. However, marijuana use increased from 13.0 percent in 2000/2001 to 18.6 percent in 2002/2003 among Missouri's young adults 18-25 years of age, compared to 17.9 percent nationally. Marijuana use in the 26 and older age group increased in Missouri from 2.6 percent to 4.6 percent.

Tobacco: Current use of any tobacco product increased among all age groups in Missouri, involving 36.7 percent of adolescents and adults 12 years of age and older in 2002/2003. This rate was considerably higher than the national rate of 30.1 percent during the same time period. Among Missouri adolescents 12-17 years of age, current use of tobacco increased from 17.2 percent in 2000/2001 to 21.0 percent in 2002/2003, also much higher than the national rate of 14.8 percent. Cigarette smoking comprised most of the adolescent tobacco use and increased from 14.2 percent to 17.9 percent. Among U.S. adolescents, current cigarette smoking decreased from 13.3 percent in 2000/2001 to 12.6 percent in 2002/2003. Tobacco use by Missouri young adults 18-25 years of age increased from 49.1 percent to 51.8 percent, while nationally tobacco use in this age group increased from 43.4 percent in 2000/2001 to 45.0 percent in 2002/2003. Among Missouri adults age 26 and older, tobacco use increased to 36.2 percent and approximated the overall Missouri rate. Based on the NSDUH, 30.6 percent of Missouri's adolescents and adults were current cigarette smokers in 2002/2003, compared to 25.0 percent nationally.

Monitoring the Future Survey

Monitoring The Future (MTF) is a national annual survey of students in grades 8, 10, and 12, college students, and young adults 19-28 years of age. National data from these surveys is provided in the tables on pages 34-37 [2, 3]. Although Missouri subsets of the MTF are not available for comparison, similar Missouri data is available from three sources—the Youth Risk Behavior Survey (YRBS), the Missouri Student Survey, and the Core Institute Survey. The YRBS is part of a surveillance system of the Centers for Disease Control and Prevention (CDC). It is administered nationally and in Missouri in odd-numbered years to students in grades 9-12 [9]. The Missouri Student Survey is conducted in even-numbered years for students in grades 6, 8, 10, and 12. The most recent prevalence data from these surveys is summarized on page 42 [47, 53]. Results from the 2004 Missouri Student Survey are expected in mid-2005. The Core Institute Survey is administered at 12 Missouri public universities and colleges. Among its measures, the survey collects data on student binge drinking. Consistent with MTF, the Core Institute survey defines current binge drinking as consuming at least five alcoholic drinks on a single occasion at least once during the two weeks preceding the survey. Binge drinking was reported by one-half (49.9 percent) of the college students surveyed in Missouri in 2004, compared to 48.2 percent in 2003 [78].

Other Consumption Data

The YRBS also questions students on their first use of alcohol, tobacco, and marijuana before age 13. In 2003, 28.6 percent of high school males and 21.7 percent of high school females indicated they drank alcohol before age 13, compared to 32.0 percent of males and 23.3 percent of females nationwide. Missouri and U.S. high school students had similar rates for initiating tobacco and marijuana use. Twelve percent of Missouri males and 7.9 percent of females in grades 9-12 said they tried marijuana before age 13. Early smoking rates were 20.6 percent for males and 19.7 percent for females.

Based on alcohol sales, consumption of alcohol among the Missouri population age 14 and older reached its highest per capita amount since 1981. Missouri residents consumed an average of 2.39 gallons of ethanol (absolute alcohol) in 2002, compared to the national average of 2.20 gallons. Previously, Missouri's alcohol consumption reached 2.45 gallons per capita in 1981 before declining through the 1980's and 1990's [59].