

# **STATUS REPORT ON MISSOURI'S SUBSTANCE ABUSE AND MENTAL HEALTH PROBLEMS**

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**17th Edition - 2011**



**MISSOURI DEPARTMENT OF MENTAL HEALTH  
Division of Alcohol and Drug Abuse**

# STATUS REPORT ON MISSOURI'S SUBSTANCE ABUSE AND MENTAL HEALTH PROBLEMS

SEVENTEENTH EDITION — 2011

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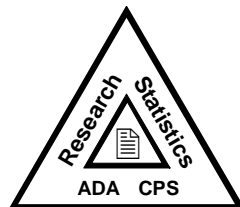
<http://www.dmh.missouri.gov/ada/rpts/status.htm>

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**PREFACE**

This 17<sup>th</sup> Edition of the *Status Report* brings an expansion of contents and a name change. Since its first release in 1995 the annual *Status Report on Missouri's Alcohol and Drug Abuse Problems* has presented survey data, state and county-level indicators of substance abuse, and clinical treatment admissions in Division of Alcohol and Drug Abuse programs. The *Status Report* provides useful data for prevention and treatment needs assessments, services planning, and program evaluation. Some individuals have a combination of problems related to substance abuse, mental health, physical health, family relations, education, employment, legal issues, or other serious concerns. An appropriate and effective treatment system requires a collaborative approach among behavioral health services agencies supported by integrated data analysis.

Earlier this year, the Missouri Department of Mental Health convened the Missouri Behavioral Health Epidemiology Workgroup. Comprised of data specialists from several state agencies, the Workgroup is developing a system to identify, collect, monitor, integrate, and analyze a more comprehensive set of substance abuse, mental health, and related data. This publication's name change to *Status Report on Missouri's Substance Abuse and Mental Health Problems* reflects the Department's commitment to that project. This edition of the report includes some additional mental health indicators and the first-time presentation of clinical data from the Division of Comprehensive Psychiatric Services.

Inquiries and comments should be directed to the Division of Alcohol and Drug Abuse, Research and Statistics office at: <mailto:adamail@dmh.mo.gov>.

Prior editions of the *Status Report* are accessible at this website:  
<http://www.dmh.missouri.gov/ada/rpts/status.htm>

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Stringer".

Mark Stringer

## ACKNOWLEDGMENTS

The authors would like to recognize and thank many individuals and their agencies, including the following, for their contributions of data and support in producing this 17th Edition of the Status Report:

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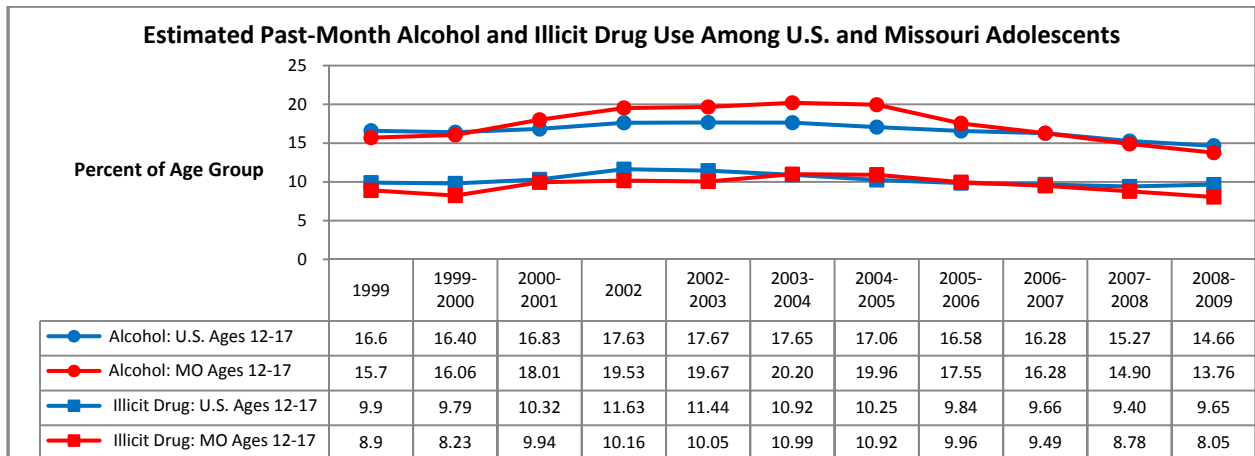
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# HIGHLIGHTS

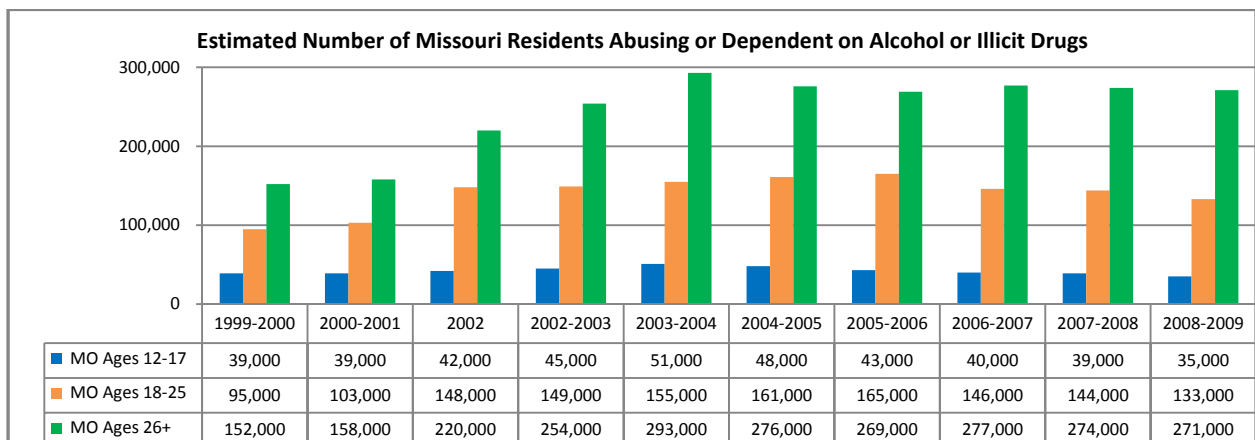
## PREVALENCE OF SUBSTANCE ABUSE

While illicit drug use rates are beginning to rise in the United States, drug use among Missouri adolescents continues to decline. Using two years of combined data, the latest report from the National Survey on Drug Use and Health estimates that 8.35% of adolescents and adults in the U.S. – and 7.56% of those in Missouri – currently use an illicit drug. However, among Missouri adolescents 12-17 years of age, illicit drug use has declined to the lowest rate reported in the 10-year history of the state estimates. National rates for past-month alcohol use also edged up in 2008/2009, but decreased in Missouri for all age groups. Current alcohol use among Missouri adolescents 12-17 years of age dropped to an estimated 13.76% – the lowest rate reported for Missouri adolescents in the 10-year history of the survey’s state estimates. Among young adults 18-25 years of age, Missouri’s drinking rate declined to an estimated 60.99% and dipped slightly below the national rate of 61.51% for that age group for the first time.



Data Source: Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health.

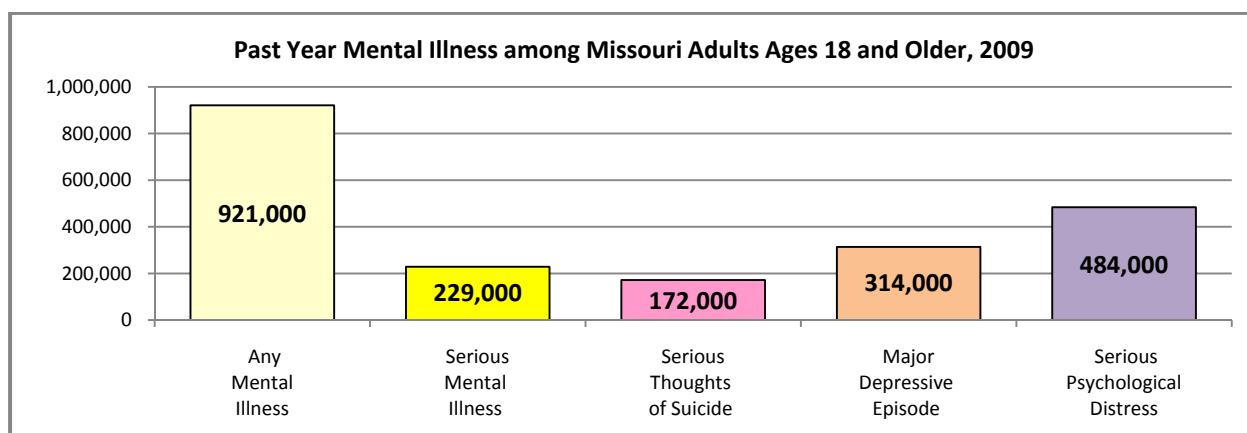
The survey estimates that 439,000 Missouri residents have an alcohol or illicit drug dependency or abuse problem. They consist of 35,000 adolescents, 133,000 young adults, and 271,000 adults older than age 25. An estimated 316,000 have a problem with alcohol, 66,000 with illicit drugs, and 57,000 with both alcohol and illicit drugs.



Data Source: SAMHSA, National Survey on Drug Use and Health.

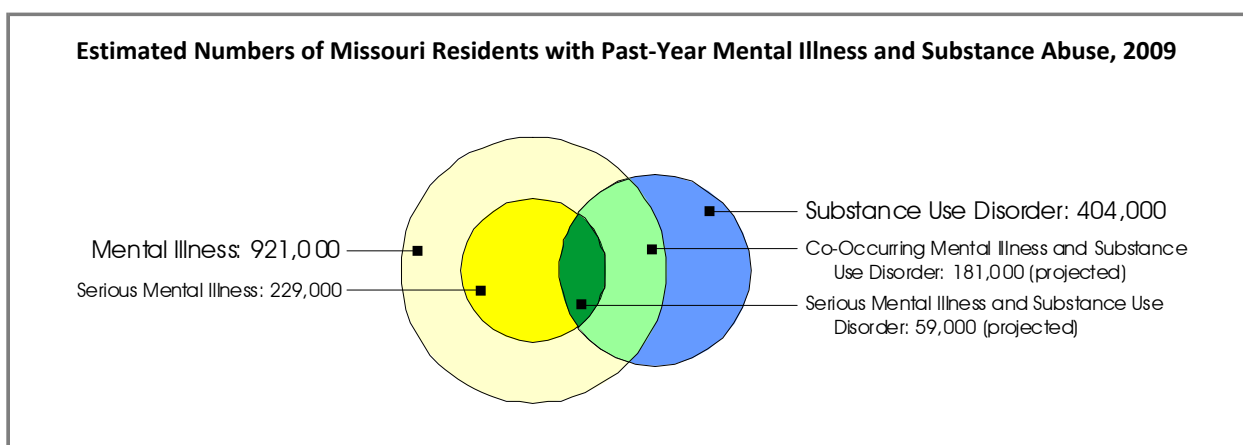
## PREVALENCE OF MENTAL ILLNESS

**One-fifth of Missouri adults had some form of mental illness in the past year.** Based on recent data from the National Survey on Drug Use and Health (NSDUH), an estimated 20.86% of Missouri residents age 18 and older had any past-year mental illness. This is slightly higher than the U.S. rate of 19.67% and also higher than the overall rate for states in the Midwest. Among the 921,000 Missouri adults with mental illness, 229,000 had serious mental illness, 172,000 had serious thoughts of suicide, 314,000 had at least one major depressive episode, and 484,000 had serious psychological distress. Many individuals had more than one type of mental health problem. Young adults 18-25 years of age accounted for 24% of the total, but 28% of those with serious psychological distress. Adults older than age 25 constituted 82% of those with a past-year major depressive episode.



Data Source: SAMHSA, National Survey on Drug Use and Health.

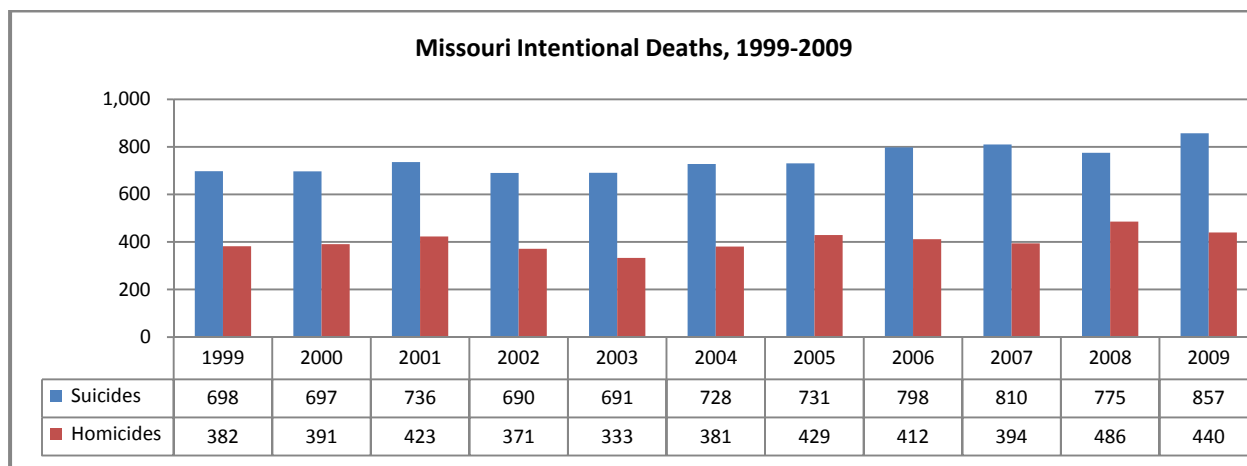
Nationwide, almost 20% of adults with any mental illness also have a substance use disorder, identified as past-year dependence on, or abuse of, alcohol or an illicit drug. This co-occurrence has a rate of 25.7% among individuals with serious mental illness. Projecting from the national data, approximately 181,000 Missouri adults have co-occurring mental illness and substance use disorder — 45% of Missouri's 404,000 adults with substance abuse problems. Among the 181,000, nearly one-third have serious mental illness.



Data Source: SAMHSA, National Survey on Drug Use and Health. Missouri estimates for prevalence of co-occurring mental illness and substance abuse are projected from U.S. rates.

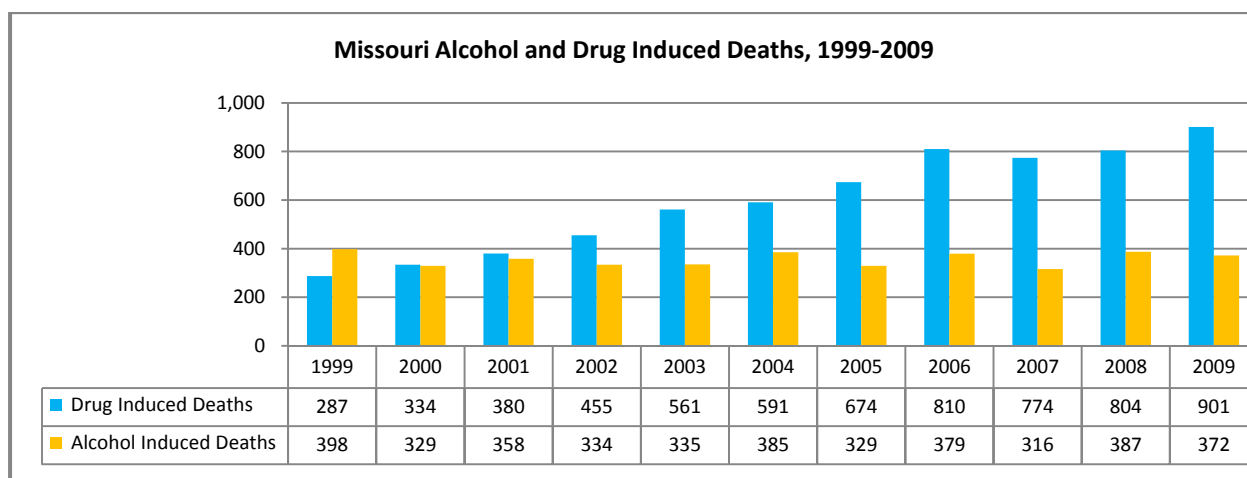
## SUBSTANCE ABUSE AND MENTAL ILLNESS RELATED DEATHS

**Intentional deaths in Missouri are increasing.** Missouri had 54,064 total resident deaths in 2009. These included 857 suicides, 440 homicides, and 2,275 deaths originating from other mental or behavioral disorders—primarily dementia with 2,078 deaths. Suicide reached its highest rate of the past decade at 158 per 10,000 population, while homicide posted the decade’s second-highest rate at 81 per 10,000. Mental conditions resulting in smaller numbers of deaths included depression, schizophrenia, mental retardation, brain disease, anxiety, eating disorders, stress, and bipolar disorder.



Data Source: Missouri Department of Health and Senior Services, Missouri Vital Statistics.

The suicides included 120 intentional poisonings using illicit drugs or medications and fewer than five using alcohol. Altogether Missouri had 372 alcohol-induced deaths, 901 drug-induced deaths, and 9,655 smoking-related deaths in 2009. Accidental poisoning by narcotics and unspecified drugs and medicines accounted for most of the increase in drug related deaths in recent years.

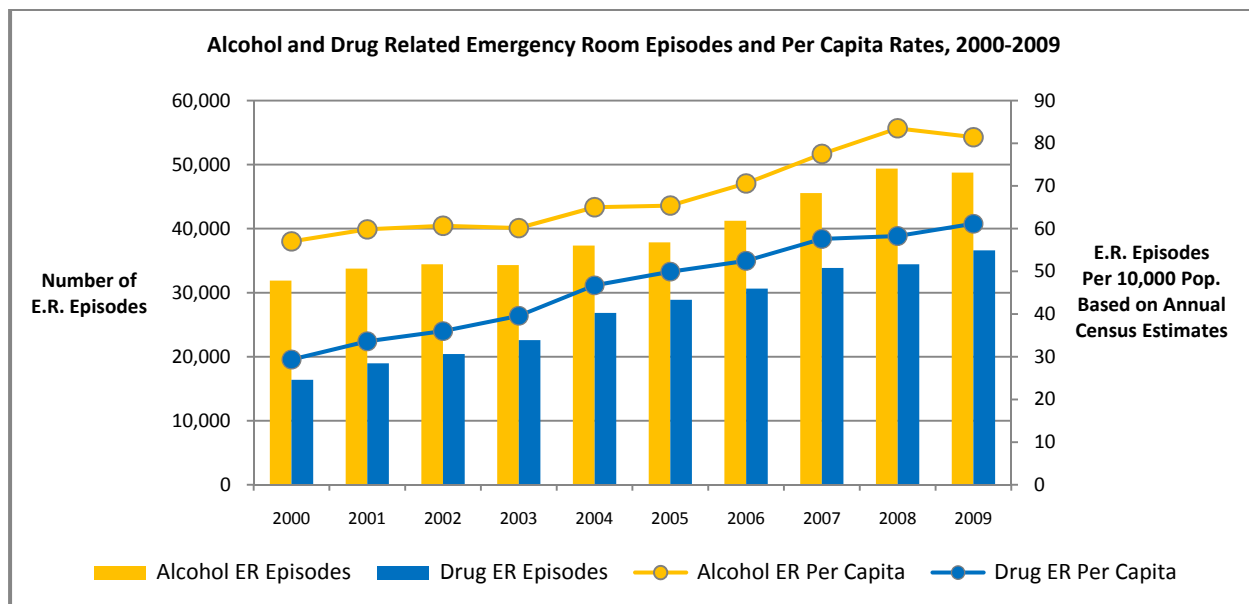


Data Source: Missouri Department of Health and Senior Services, special data tabulations.

Also in 2009, Missouri had 264 traffic crash deaths involving alcohol-impaired drivers or pedestrians, 57 deaths in crashes involving drug impairment, and 5 boating fatalities attributed to intoxication. Annually, there are an unspecified number of non-traffic deaths resulting from the behavioral effects of excessive alcohol and drug use. These include impairment-related homicide, suicide, drowning, fire, fall, aviation, and firearm incidents.

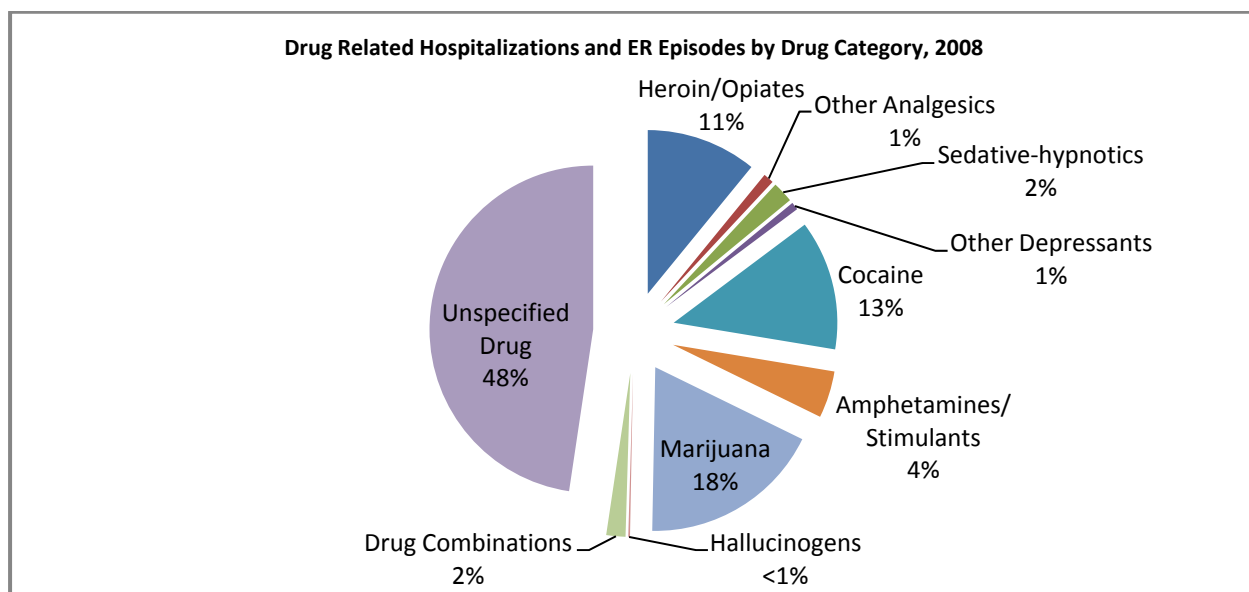
## SUBSTANCE ABUSE RELATED HOSPITAL EPISODES

**Alcohol and drug related emergency room episodes and per capita rates have increased during the past decade.** Alcohol related ER episodes involving Missouri residents increased from nearly 32,000 in year 2000 to 49,000 in 2009. During this period, the population-based rate increased from 57 per 10,000 to 81 per 10,000. The number of drug related episodes more than doubled, and the rate increased from 29 per 10,000 population in 2000 to 61 per 10,000 in 2009.



Data Source: Missouri Department of Health and Senior Services.

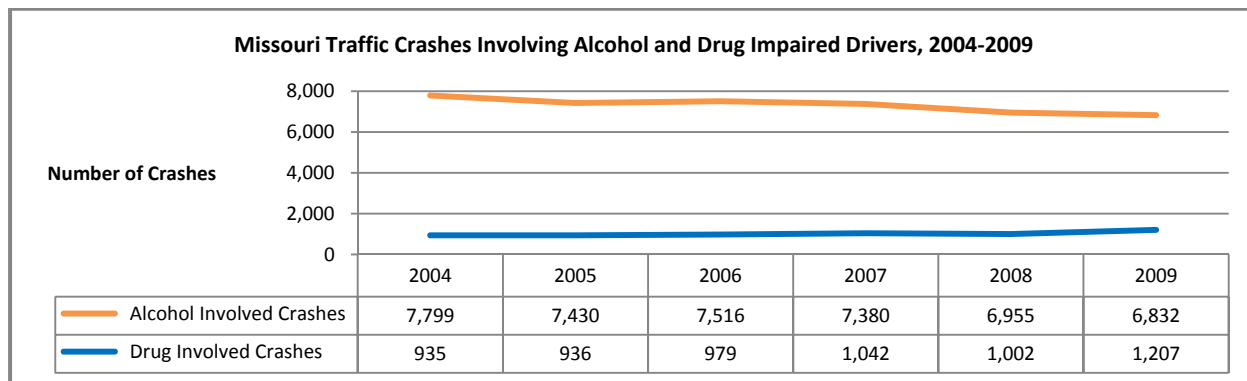
Emergency room services were used with 60% of the alcohol related and 54% of the drug related hospitalizations in 2008. Among the drug related ER and hospital services, almost one-half did not identify a specific drug in the first-listed drug diagnosis. Marijuana, cocaine, and heroin accounted for most of the specified drugs.



Data Source: Missouri Department of Health and Senior Services.

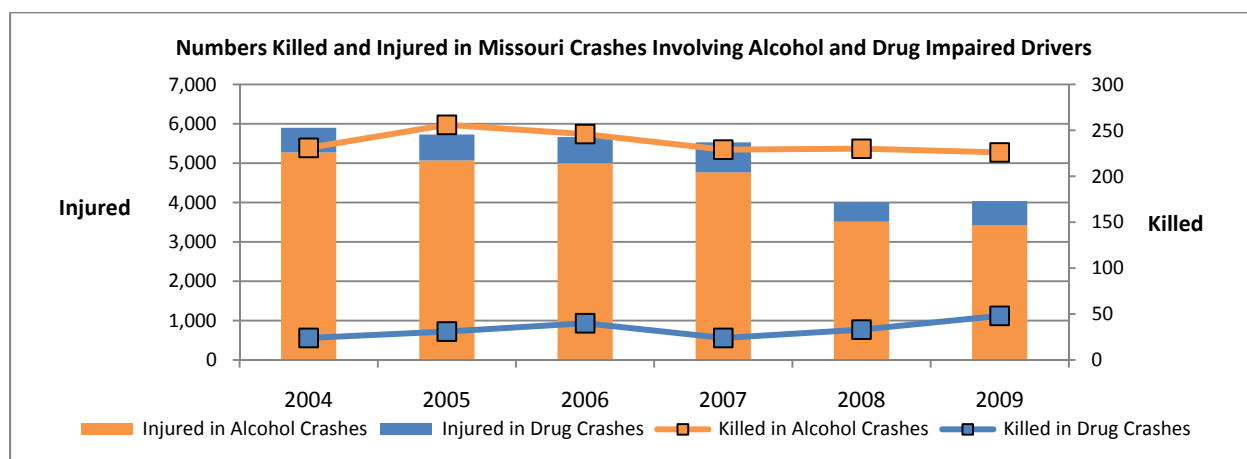
## SUBSTANCE ABUSE RELATED TRAFFIC CRASHES

Alcohol-related traffic crashes continue to decline, and drug-related crashes are increasing. Missouri recorded 6,832 traffic crashes involving alcohol-impaired drivers and 1,207 involving drug-impaired drivers in 2009.

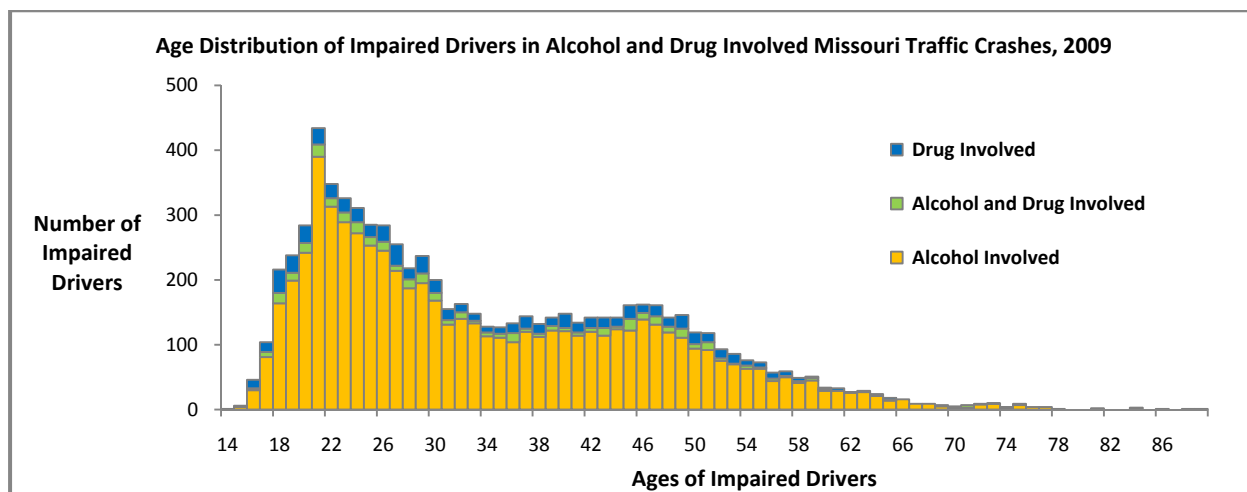


Data Source (all charts on this page): Missouri State Highway Patrol, Statistical Analysis Center.

These crashes caused 274 deaths and 4,038 injuries in 2009.

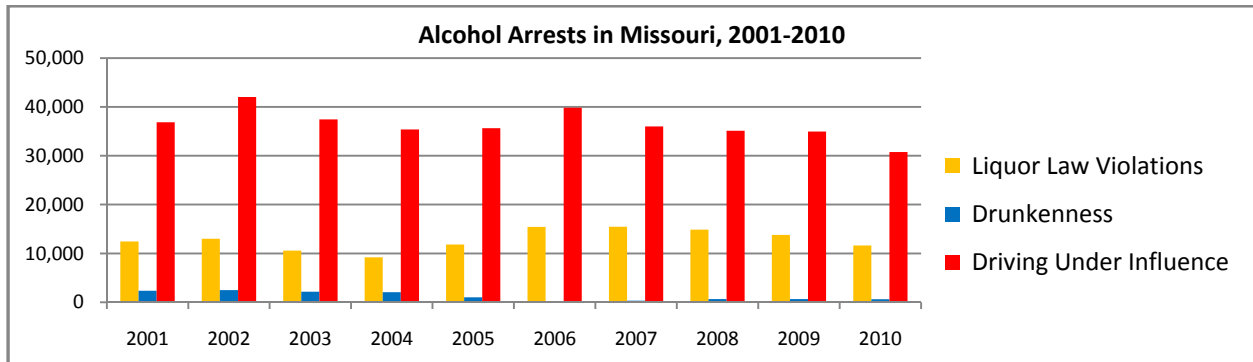


In 2009, impaired drivers in alcohol and drug involved traffic crashes had a median age of 30.



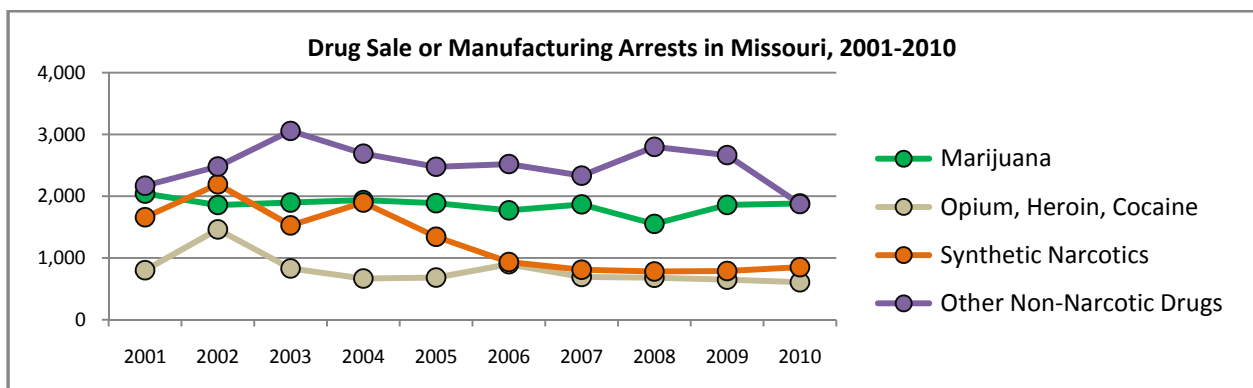
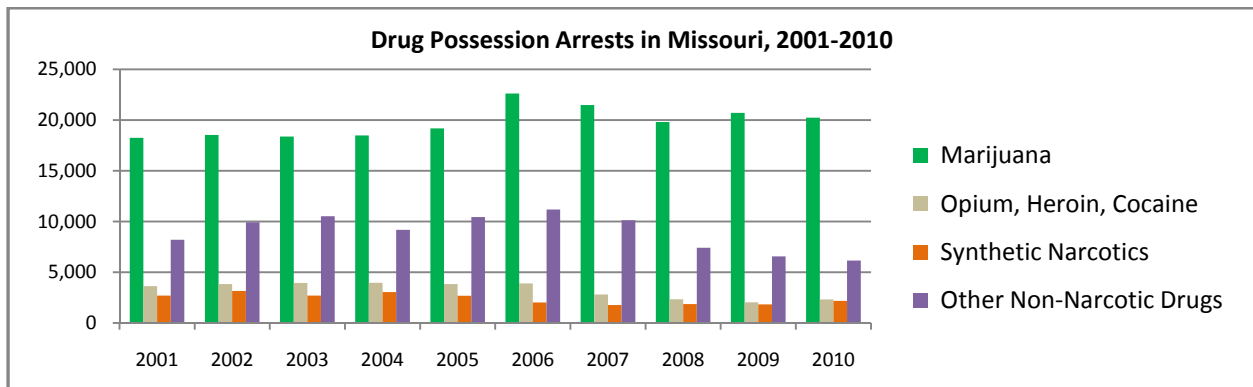
## ALCOHOL AND DRUG ARRESTS

**Alcohol and drug arrests are declining in Missouri.** Based on the FBI's Uniform Crime Reports, there were 34,946 arrests for driving under the influence in 2009 compared to a peak of 42,041 in 2002. Arrests for liquor law violations totaled 13,801 in 2009 compared to more than 15,000 in 2006 and 2007, and most of the arrests for public intoxication occurred in the first half of the decade.



Data Source: Federal Bureau of Investigation, Uniform Crime Reports.

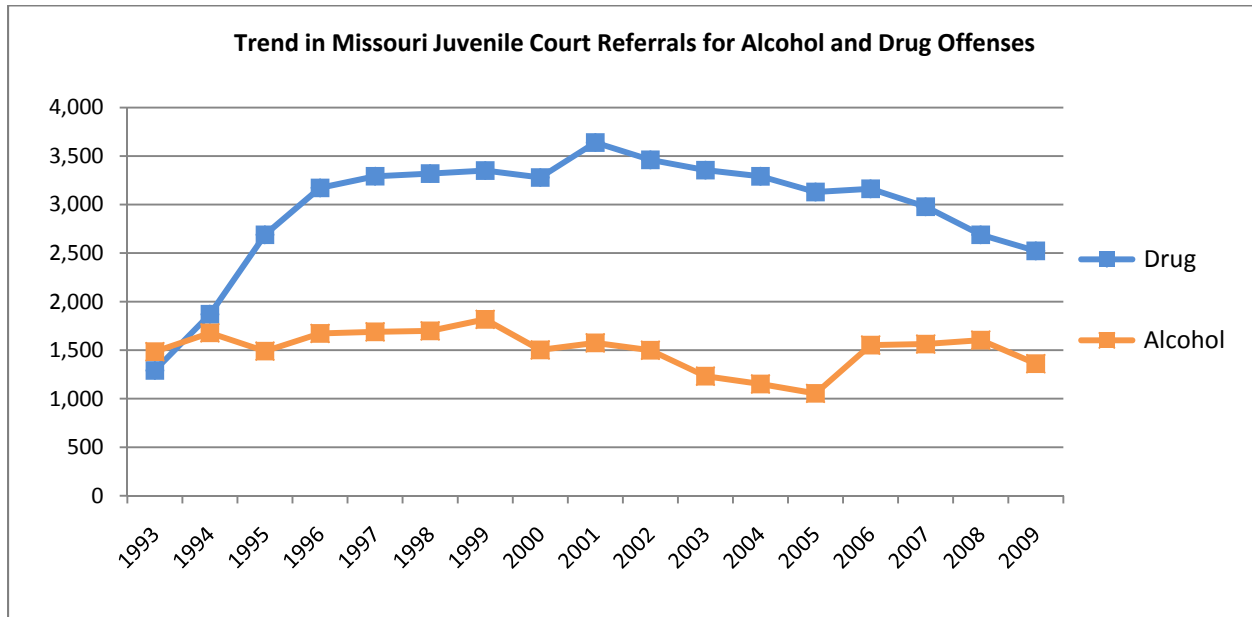
Arrests for possession of marijuana reached 22,608 in 2006 before declining to 20,709 in 2009. There were 2,030 arrests for possession of cocaine, opium, and their derivatives (including heroin) in 2009 compared to almost 4,000 in 2003 and 2004. Arrests for possession of other non-narcotic illicit drugs totaled 6,563 in 2009 after reaching a peak of 11,173 in 2006, while total arrests for sale or manufacture of illicit drugs were highest in 2002.



Data Source: Federal Bureau of Investigation, Uniform Crime Reports.

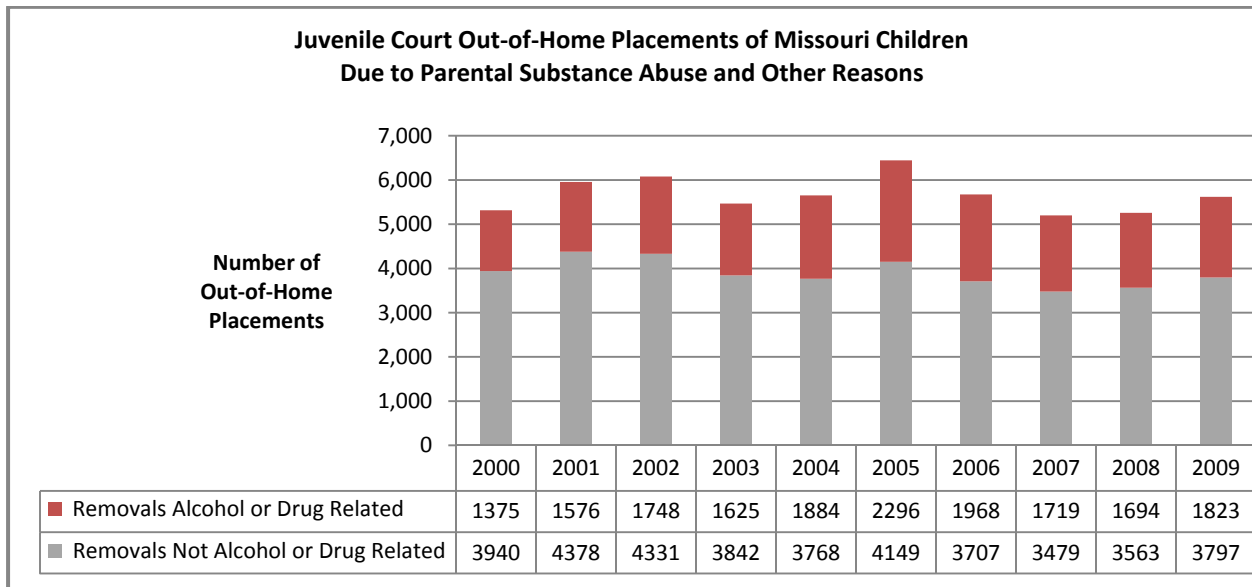
## JUVENILE COURT ALCOHOL AND DRUG RELATED SERVICES

Missouri juvenile court referrals for alcohol and drug offenses have declined to their lowest level since 1994. Drug violations comprised 65% — and alcohol violations 35% — of the 3,884 substance-related adolescent referrals in 2009. Total law violation referrals have decreased an average of 3.9% annually since 1999, declining to 32,192 in 2009. During that same 10-year period, average annual reductions in juvenile court referrals have been 1.5% for alcohol violations and 2.7% for drug violations.



Data Sources: Missouri Department of Social Services and Missouri Office of State Courts Administrator.

Missouri court-ordered out-of-home placements of children increased to 5,620 in 2009. Parental substance abuse was a contributing reason for nearly one-third of these removals. During the past 10 years, 27% of the 56,662 out-of-home placements have involved parental drug abuse and 8% have involved parental alcohol abuse.

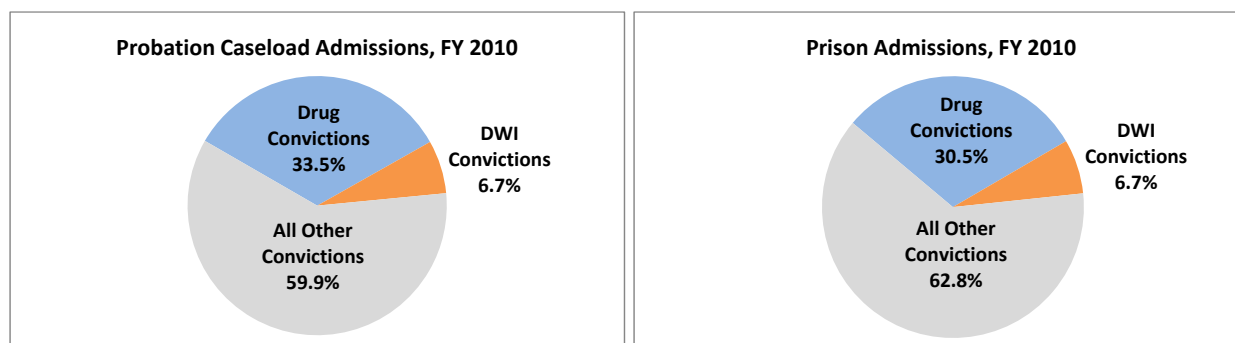


Data Source: Missouri Department of Social Services.



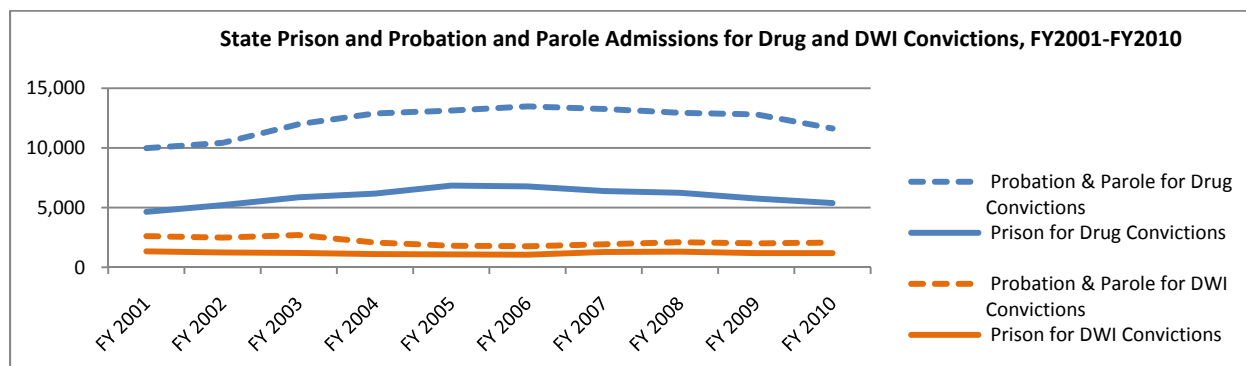
## CORRECTIONS SUPERVISION

**Drug offenses constitute a large portion of Missouri prison admissions and probation and parole caseload admissions.** Among Missouri residents receiving Department of Corrections assignments in fiscal year 2010 (July 1, 2009 – June 30, 2010), drug convictions accounted for more than 33% of all probation admissions, 30% of the prison admissions, and 29% of the parole admissions. Convictions for driving while intoxicated (DWI) comprised nearly 7% of the probation admissions, 7% of the prison admissions, and 4% of the parole admissions.

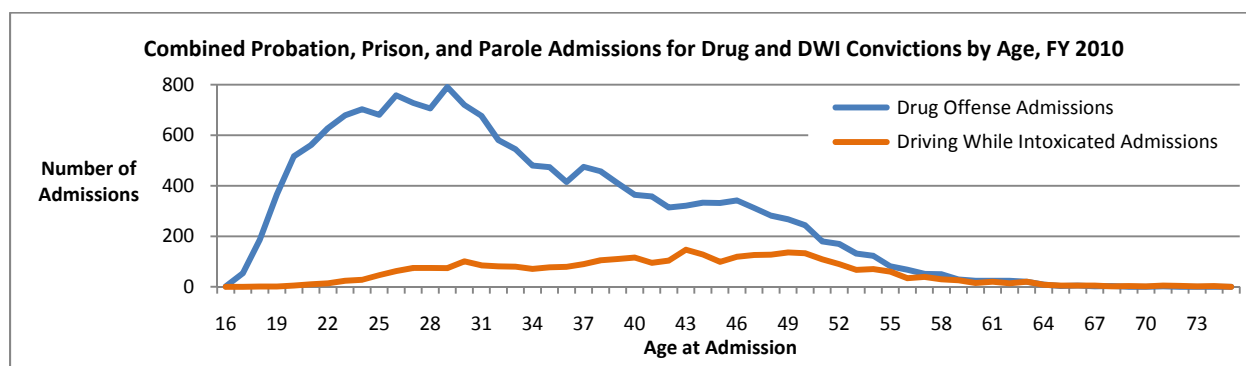


Data Source (all charts on this page): Missouri Department of Corrections.

While annual prison admissions and probation and parole assignments for DWI have shown little recent change, those for drug convictions have declined since mid-decade.

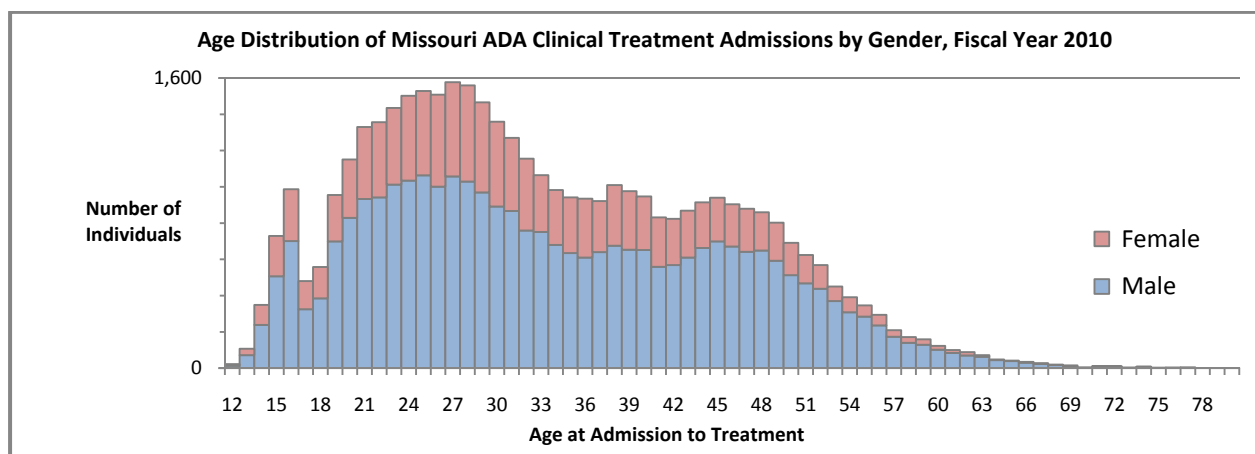


Among the 17,013 Missouri resident drug conviction admissions combined (probation, prison, and parole), the median age was 31. The 3,259 Missouri residents admitted for driving while intoxicated convictions were considerably older, with a median age of 42.



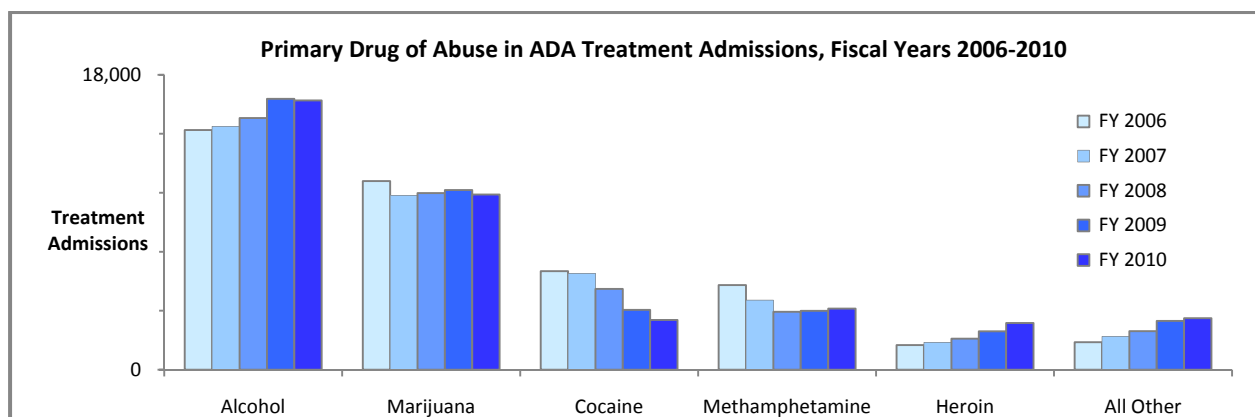
## SUBSTANCE ABUSE TREATMENT SERVICES

Nearly 75,000 individuals began substance abuse treatment or other services funded through the Division of Alcohol and Drug Abuse in fiscal year 2010. These included almost 30,000 males (median age 38) and 13,000 females (median age 35) who entered substance abuse clinical treatment programs, 30,000 who received a Substance Abuse Traffic Offender Program (SATOP) assessment including a clinical or educational referral, and 2,000 who received co-dependency or compulsive gambling services. Adolescent treatment admissions have decreased in recent years, while admissions for older adults continue to increase annually. Individuals age 55 and older comprised over 4% of the fiscal year (FY) 2010 treatment admissions. Males comprised 70% of the clinical admissions and females 30%, but this ratio varied by type of drug. Among those with primary problems of alcohol or marijuana, more than 70% were males. Females had proportionally more admissions for methamphetamine, heroin, and cocaine, and almost one-half of the admissions for other illicit and prescription drugs.



Data Source: Missouri Department of Mental Health, CIMOR system.

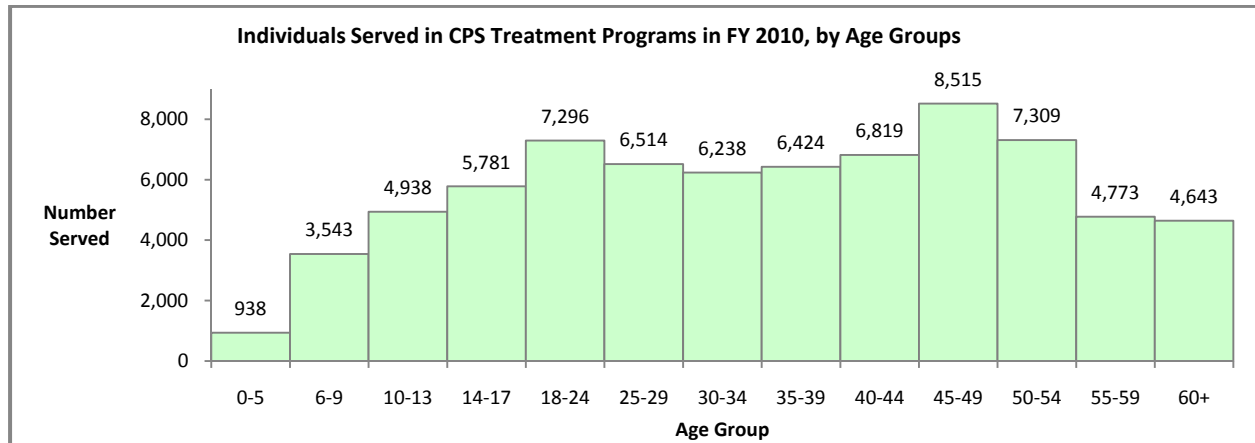
Admissions for heroin treatment increased almost 22% in FY 2010 compared to FY 2009, continuing a multi-year upward trend. Powder cocaine and crack cocaine each had 17% decreases in admissions, while methamphetamine admissions increased 4%. Alcohol admissions remained virtually unchanged from FY 2009 but still accounted for 41% of the total. Marijuana admissions decreased 2.5% and remained second. Treatment for a variety of other street drugs and pharmaceuticals constituted nearly 8% of the admissions. More than 4,000 individuals entering treatment were injection drug users.



Data Source: Missouri Department of Mental Health, CIMOR system.

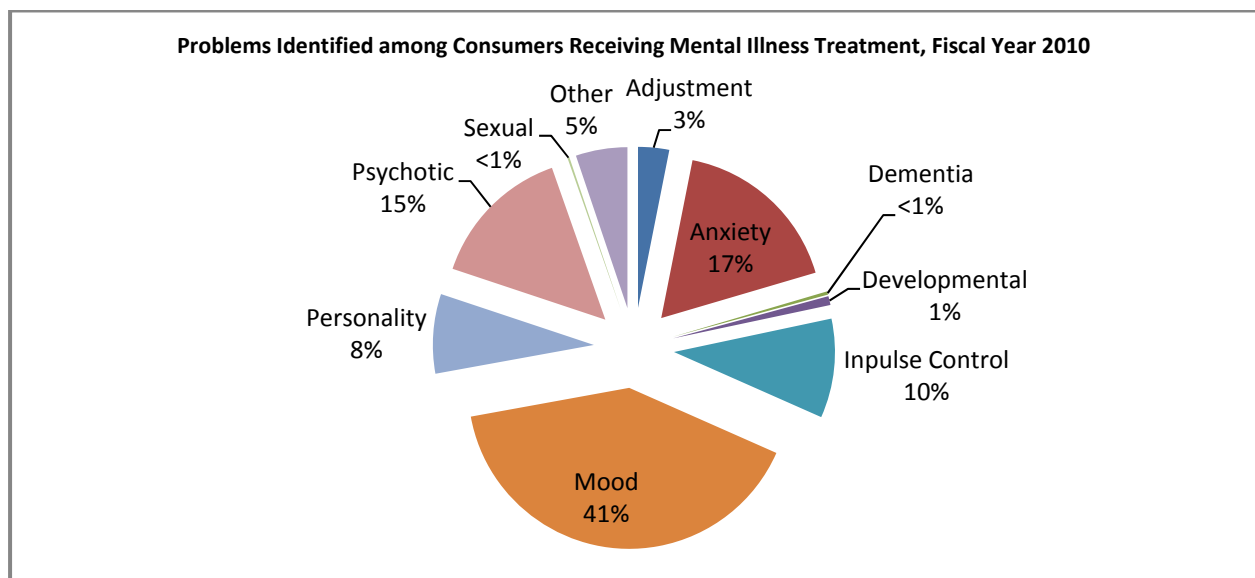
## MENTAL ILLNESS TREATMENT SERVICES

More than 73,000 individuals accessed mental health treatment through the Division of Comprehensive Psychiatric Services in fiscal year 2010. Almost equal numbers were male (49%) and female (51%). Caucasians comprised 72% of the total, African Americans 22%, Hispanics 2%, and other races/ethnicities 4%. Children and adolescents under age 18 comprised 15% of the total. Adults in their late 40's were the most served and had the highest treatment rate, with 1.9% of Missouri's population in that age group receiving mental health services.



Data Source: Missouri Department of Mental Health, CIMOR system.

Among consumers with a listed diagnosis, over 40% had a mood disorder, 17% sought treatment for anxiety, and 15% had a psychotic disorder. Smaller numbers received psychiatric treatment for impulse control disorders, co-occurring mental illness and substance abuse, and other types of disorders.



Data Source: Missouri Department of Mental Health, CIMOR system.

Nearly 60% of individuals admitted to ADA substance abuse programs — but less than 8% of those served in CPS programs — were referred by criminal justice agencies. One-half of the CPS consumers entered treatment through a self-referral or were referred by family or friends, and 20% were referred by a mental health or medical provider.

## **LOOKING AHEAD**

During the past two decades, Missouri state agencies have annually prepared a variety of substance abuse related data specifically to submit to the Status Report. Federal funding recently became available to convene the Missouri Behavioral Health Epidemiology Workgroup (MO-BHEW) and further develop the state's infrastructure of substance abuse, mental health, and other behavioral health data. The MO-BHEW has provided guidance in the development of a web tool to provide public access to archived and future Status Report data. Users will be able to view trends and conduct basic data analysis to meet their specific needs. The website will include the state agency data, Census Bureau population estimates, prevalence data from the Missouri Student Survey, and U.S. and Missouri data from the National Survey on Drug Use and Health. The web tool will be accessible from the MO-BHEW home page. Visit <http://dmh.mo.gov/ada/mobhew/index.htm>.

## Introduction

Survey data represent a valuable source of information on prevalence estimates, use and behavior patterns, drug preferences, and emerging trends. Survey data, however, are not without limitations. No single survey exists which covers all populations abusing substances. Substance abuse surveys typically fall into the following categories: 1) household surveys, 2) criminal justice surveys, and 3) school surveys. These surveys can miss segments of the population that have been impacted by substance abuse including the incarcerated, the homeless, and school dropouts. The survey data are self-report data and have inherent validity concerns due to respondent dishonesty, forgetfulness, or poor comprehension. Assessments of validity have been mixed. Research suggests that validity concerns are more evident for the criminal justice population and for reporting use of some drugs such as cocaine and heroin that may have an associated stigma. Nevertheless, collection of alcohol and drug use data via surveys provides useful information on large diverse populations that would not otherwise be available. Characteristics and highlights of the following survey data sources are provided:

[Behavioral Risk Factor Survey \(BRFS\)](#)

[Core Alcohol and Drug Survey](#)

[Missouri College Health Behavior Survey \(MCHBS\)](#)

[Missouri Student Survey \(MSS\)](#)

[Monitoring the Future \(MTF\)](#)

[National Survey on Drug Use and Health \(NSDUH\)](#)

[Youth Risk Behavior Survey \(YRBS\)](#)

## Behavioral Risk Factor Survey (BRFS)

- **Conducted by:** Centers for Disease Control (CDC) in partnership with state health departments
- **Established:** 1984
- **Frequency of Reporting:** Annual
- **Type of survey:** Household
- **Mode of survey:** Telephone interview
- **Age groups:** Ages 18 or older
- **Completed interviews:** About 450,000 nationwide and 5,400 in Missouri.
- **Level of reporting:** National, state, and Missouri Department of Health and Senior Services planning regions
- **Some strengths:** BRFS does include data on adult consumption of alcohol and use of tobacco. BRFS has a relatively large sample size. The survey allows for year-to-year comparisons.
- **Some limitations:** BRFS does not include data on drug use nor does it include adolescents in its target population.

- **Other notes:** BRFSS definitions of binge drinkers and heavy drinkers differ from that of the [National Survey on Drug Use and Health \(NSDUH\)](#) – BRFSS definitions depend upon gender.
- **Website:** <http://www.cdc.gov/brfss> and <http://cntysvr1.lphamo.org/pubdocs/brfss/index.php>

## Core Alcohol and Drug Survey

- **Conducted by:** Missouri Partners in Prevention
- **Established:** 1990 for the University of Missouri, Columbia campus. Eleven other public university campuses began implementation in 2001.
- **Frequency of Reporting:** Annual
- **Type of survey:** School/Higher Education
- **Mode of survey:** Paper Questionnaire
- **Grade levels:** Undergraduate students at 12 Missouri higher education institutions
- **Completed interviews:** Varies by campus
- **Level of reporting:** Campus level
- **Some strengths:** Core captures data on attitudes, perceptions, and opinions about use of alcohol and drugs in addition to use and consequences of use.
- **Some limitations:** Core is used primarily as a tool at the local campus level.
- **Website:** <http://coreinst.siuc.edu/>

## Missouri College Health Behavior Survey (MCHBS)

- **Conducted by:** Missouri Partners in Prevention
- **Established:** 2007 to replace annual Core Alcohol and Drug Survey
- **Frequency of Reporting:** Annual
- **Type of survey:** School/Higher Education
- **Mode of survey:** On-line Survey
- **Grade levels:** Undergraduate students at 13 Missouri higher education institutions
- **Completed interviews:** Varies by campus
- **Level of reporting:** Campus level
- **Some strengths:** The MCHBS measures attitudes, perceptions, and opinions about use of alcohol and drugs in addition to use and consequences of use. Other behaviors surveyed include gambling, safe driving, mental health issues, and tobacco use. Measure has been validity tested against the Core Alcohol and Drug Survey with favorable results.
- **Some limitations:** MCHBS is not a national survey.
- **Website:** <http://pip.missouri.edu/mchbs/>

## National Survey on Drug Use and Health (NSDUH)

- **Conducted by:** Substance Abuse and Mental Health Services Administration (SAMHSA)
- **Established:** 1971, originally titled National Household Survey on Drug Abuse
- **Frequency of Reporting:** Annual
- **Type of survey:** Household
- **Mode of survey:** Face-to-face interview
- **Age groups:** Ages 12 or older
- **Completed interviews:** 68,487 nationwide and about 900 in Missouri for 2010 survey.
- **Level of reporting:** National but can also obtain state and sub-state planning regions by combining multiple survey years
- **Some strengths:** NSDUH allows for year-to-year comparisons for national data and a rolling multi-year comparison for state and sub-state data. In addition to substance use data, NSDUH provides data on past year alcohol or illicit drug dependence or abuse.
- **Some limitations:** NSDUH interviews household residents only, and the survey estimates are based on these populations. Not represented in the surveys are prison and jail inmates, other institutionalized individuals, and the homeless. Limited drug and demographic data are available at the state level because of the small sample size. NSDUH does not separate out smokeless tobacco and chewing tobacco. Age categories generally limited to 12-17, 18-25, and 26 and older.
- **Other notes:** NSDUH definitions of binge drinkers and heavy drinkers differ from that of the [Behavioral Risk Factor Survey \(BRFS\)](#) – NSDUH definitions do not depend on gender.
- **Website:** <http://www.oas.samhsa.gov/nsduh.htm>

## Missouri Student Survey (MSS)

- **Conducted by:** Missouri Department of Mental Health (DMH)
- **Established:** 2000
- **Frequency of Reporting:** Every even numbered year
- **Type of survey:** School
- **Mode of survey:** Web-based
- **Grade levels:** Grades 6<sup>th</sup> through 12<sup>th</sup> but more concentrated on 9<sup>th</sup> grade
- **Completed interviews:** 129,901 in 2010
- **Level of reporting:** State and Missouri Division of Alcohol and Drug Abuse (ADA) planning regions
- **Some strengths:** MSS is offered to all Missouri public school districts. MSS includes the younger middle school population in addition to the high school population. MSS also captures data on risk and protective factors and antisocial behaviors in addition to substance use patterns.
- **Some limitations:** Some school districts opt out of the survey. In 2010, 426 of the 522 districts participated in some capacity, and 372 had sufficient sample sizes for district-level analysis. Caution must be used if combining grades because weighting is not applied. Data are only available every other year.

- **Other notes:** MSS definition of binge drinking is different than that of NSDUH. MSS combines ecstasy with other club drugs which is different than NSDUH.
- **Website:** <http://www.dmh.missouri.gov/ada/rpts/survey.htm>

## Monitoring the Future (MTF)

- **Conducted by:** National Institute on Drug Abuse (NIDA)
- **Established:** 1975
- **Frequency of Reporting:** Annual
- **Type of survey:** School
- **Mode of survey:** Paper questionnaire
- **Grade levels:** 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders; college students; and young adults
- **Completed interviews:** About 46,000 students nationwide
- **Level of reporting:** National
- **Some strengths:** MTF provides data on lifetime, past year, and past 30 day use of various illicit drugs including methamphetamine. Questions regarding prescription drug use including use of OxyContin, Vicodin, and Ritalin have been added in recent years. MTF also captures data on perception of harm and disapproval.
- **Some limitations:** MTF does not provide state level data.
- **Other notes:**
- **Website:** <http://www.monitoringthefuture.org/>

## Youth Risk Behavior Survey (YRBS)

- **Conducted by:** Centers for Disease Control
- **Established:** 1991
- **Frequency of Reporting:** Every odd-numbered year
- **Type of survey:** School
- **Mode of survey:** Paper questionnaire
- **Grade levels:** 9<sup>th</sup> through 12<sup>th</sup>
- **Completed interviews:** 16,460 nationwide and 1,624 in Missouri in 2009
- **Level of reporting:** National and State
- **Some strengths:** YRBS includes questions on alcohol, drug, and tobacco use. YRBS includes questions on lifetime steroid use and lifetime IV drug use.
- **Some limitations:** Some states do not participate in the YRBS -- three in 2009. YRBS does not capture data on private schools or home-school children. Current drug use limited to marijuana and cocaine. Limited data are available at the state level due to small sample size. Data only available every other year.
- **Other notes:** YRBS definition of binge drinking similar to that of the [National Survey on Drug Use and Health \(NSDUH\)](#).
- **Website:** <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>