

DATA HIGHLIGHTS

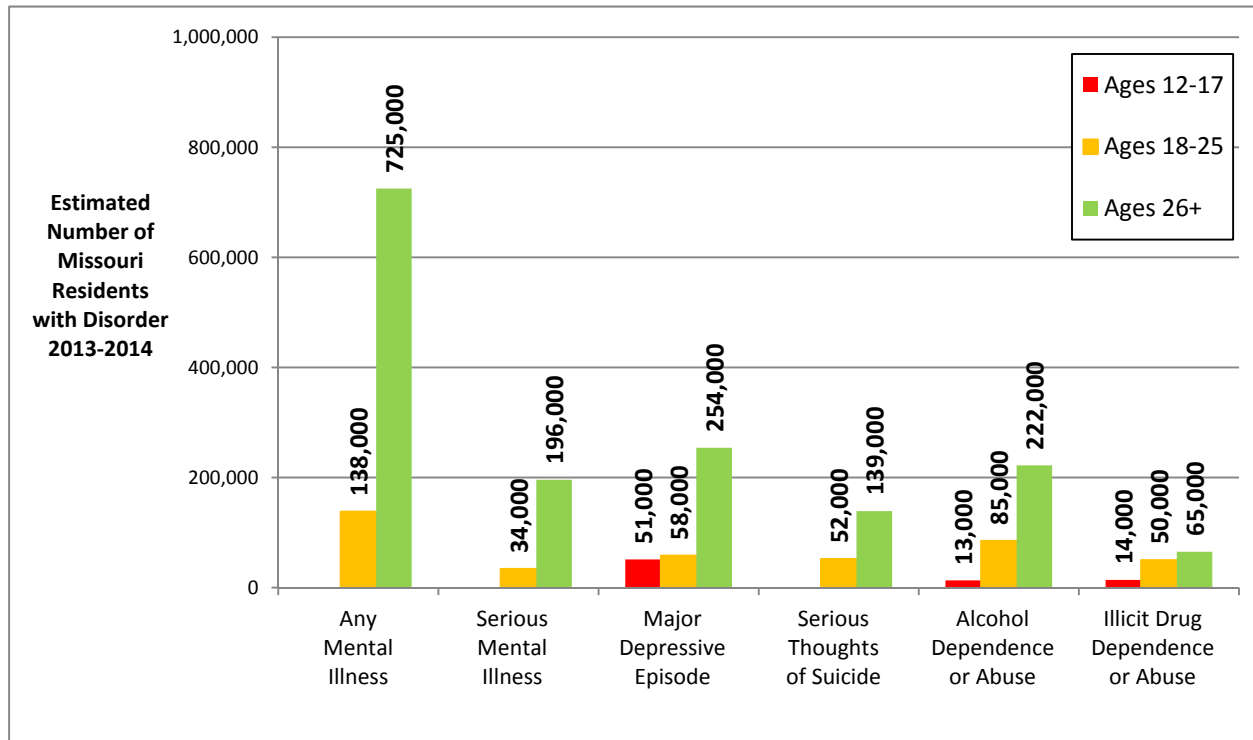
OVERVIEW

Each year, an estimated 19% of Missouri adults experience a mental disorder. Missouri data from the National Survey on Drug Use and Health (NSDUH) provide past-year estimates of mental illness for the Missouri population over age 18. Rates for any mental illness (AMI) have consistently remained around 19% for the past several years. The 2013-2014 estimates for adults in the age group 18-25 are even higher at 21%. Approximately 862,000 Missouri adults have a past-year mental illness.

An estimated 5% of Missouri adults have a serious mental illness. Included among the 19% with past-year mental illness are 5% who have serious mental illness (SMI). The total of 230,000 includes 34,000 young adults ages 18-25 and 196,000 older than 25. Serious mental illness encompasses disorders such as schizophrenia, depressive psychosis, and bipolar depression that result in serious functional impairment. According to NSDUH estimates, 11% of Missouri adolescents and 7% of Missouri adults experienced a past-year major depressive episode.

Approximately 8% of Missouri residents older than age 12 have a substance use disorder. In the most recent NSDUH two-year survey period, an estimated 5% of Missouri adolescents 12-17 years of age, 17% of young adults 18-25 years of age, and 7% of adults older than 25 had a past year substance use disorder (SUD). The estimates are based on rates of dependence or misuse of alcohol and/or illicit drugs. A total estimate of 399,000 Missouri residents with a SUD includes approximately 23,000 adolescents, 112,000 young adults, 174,000 adults in the age group 26-49, and 90,000 adults older than age 50.

Figure 1: Age Group Estimates for Past-Year Mental Illness and Substance Use Disorders, Missouri 2013-2014



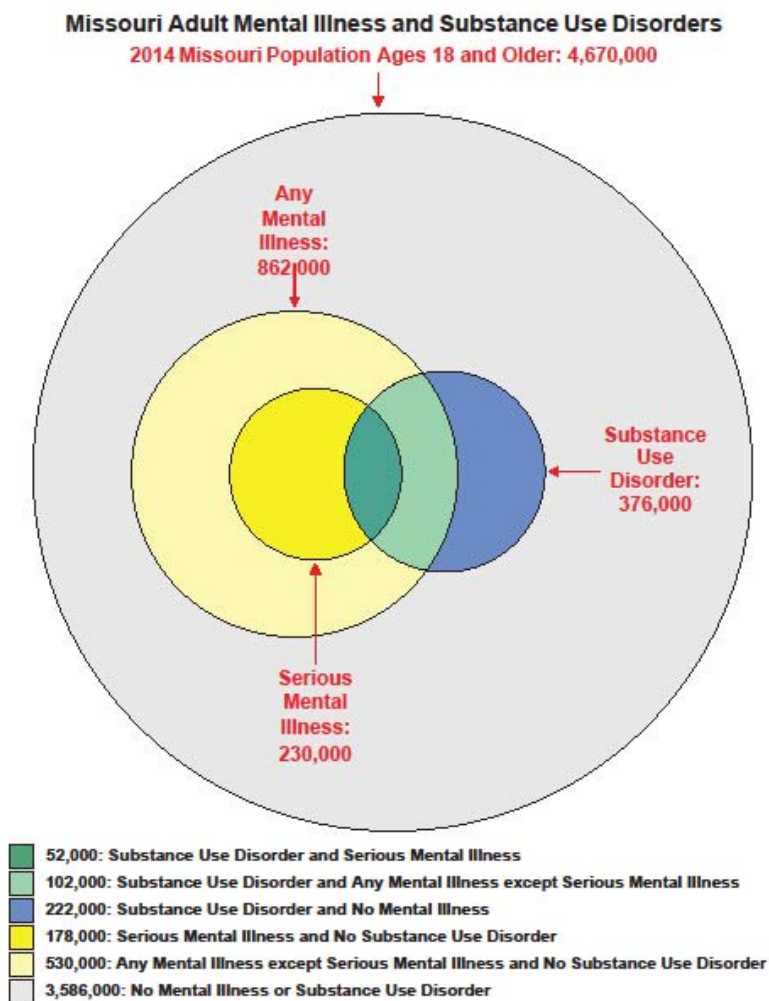
Data Source: U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA). National Survey on Drug Use and Health, 2013-2014. Estimates are 2-year averages. Some individuals are in more than one disorder category. Estimates are not available for ages 12-17 for Any Mental Illness, Serious Mental Illness, and Serious Thoughts of Suicide.

CO-OCCURRENCE OF MENTAL ILLNESS AND SUBSTANCE USE DISORDERS

Mental illness rates are substantially higher among adults with substance use disorders. According to the 2014 National Survey on Drug Use and Health, 39% of U.S. adults with a past-year substance use disorder have any mental illness (AMI) in the past year. This includes 11% who have serious mental illness (SMI). In contrast, 16% of adults without a substance disorder have AMI. Projecting from the national data, approximately 154,000 of the 376,000 Missouri adults with past year substance use disorders could have any past-year mental illness, including 52,000 with serious mental illness.

Conversely, substance use rates are higher in adults with mental illness. Among U.S. adults with past-year AMI, 18% have a past-year substance use disorder. This co-occurrence is larger at 23% among adults with SMI. Only 6% of adults without past-year mental illness have a past-year substance use disorder. Among the 862,000 Missouri adults with any past-year mental illness, it is expected that approximately 154,000 have a past-year substance use disorder based on national rates of co-occurrence. Among the 230,000 Missouri adults with past-year serious mental illness, a projected 52,000 have a substance use disorder. At least 6,000 of the Missouri adolescents with a past-year major depressive episode (MDE)—including 5,000 with severe impairment—are among the estimated 23,000 with past-year substance use disorders.

Figure 2: Co-occurrence of Adult Mental Illness and Substance Use Disorders in Missouri, 2014:

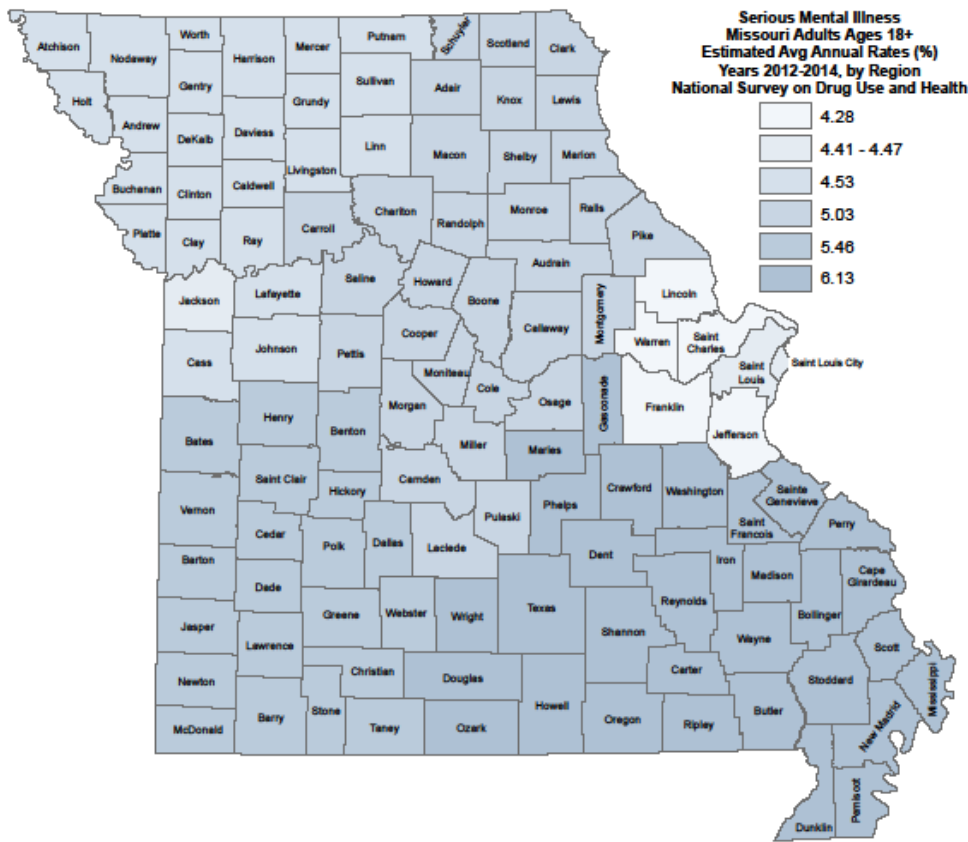


Source: Data are approximations prepared by the Missouri Division of Behavioral Health based on estimates from the National Survey on Drug Use and Health (NSDUH) for the U.S. and Missouri for years 2013 and 2014.

PREVALENCE OF MENTAL ILLNESS

Estimated rates of serious mental illness are highest in southeast Missouri. Based on data from the past three NSDUH survey years, annually an estimated 19.1% of Missouri adults experience any mental illness (AMI) and 4.9% experience serious mental illness (SMI). The AMI rate ranges from 17.3% in the fringe counties of the Saint Louis metro area to 21.0% in southwest Missouri. Estimated rates for SMI are also lowest in the Saint Louis area (4.4%) but highest in southeast Missouri (6.1%). The statewide SMI rates are slightly higher for young adults ages 18-25 than for adults older than 25.

Figure 3: Adult Serious Mental Illness Rates in Missouri, 2014



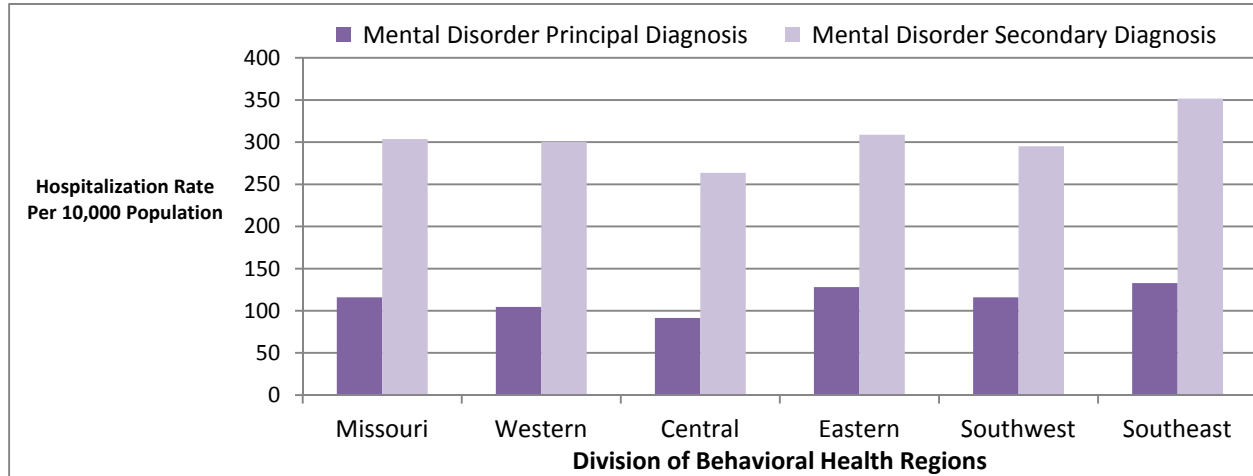
Source: National Survey on Drug Use and Health, 2012-2014 sub-state estimates.

Annually, more than 10% of Missouri adolescents have a major depressive episode. An estimated 51,000 adolescents ages 12-17 have a past-year major depressive episode (MDE) according to Missouri data from the NSDUH for years 2013-2014. Additionally, 52,000 adolescents have serious thoughts of suicide. Rates for depression are highest for adolescents and adults in southwest Missouri. Annually, approximately 4% of Missouri adults seriously contemplate suicide. This rate ranges from 3.7% in the Saint Louis area to 4.9% in southeast Missouri.

Nearly 100,000 Missouri adults with serious mental illness have an unmet need for mental health treatment. The 2014 National Survey on Drug Use and Health indicates that nearly 45% of adults nationwide with any mental illness (AMI) received mental health services in the past year. The survey encompasses utilization of inpatient and outpatient clinical services and prescription medication. Among the adults with serious mental illness (SMI), 68.5% received services. These rates, when applied to Missouri's prevalence estimates, suggest that approximately 385,000 of Missouri's 862,000 adults with AMI are receiving mental health services, including 158,000 of the 230,000 with SMI. A projected 99,000 Missouri adults with SMI need but are not receiving services or need more help than they are receiving.

In 2014, 70,000 Missouri residents were hospitalized with a mental disorder principal diagnosis. An additional 184,000 had a mental disorder as a contributing factor in their hospitalizations. The statewide hospitalization rate for a mental disorder principal diagnosis was 116 per 10,000 population, and the rate ranged from 91.5 in the Central Region to 132.8 in the Southeast Region. Among 79,000 emergency room (ER) visits principally for mental disorders, the Southeast and Eastern regions had the highest rates—both at 144 per 10,000. Residents in the Western region had the lowest mental disorder ER rate at 103 per 10,000 population.

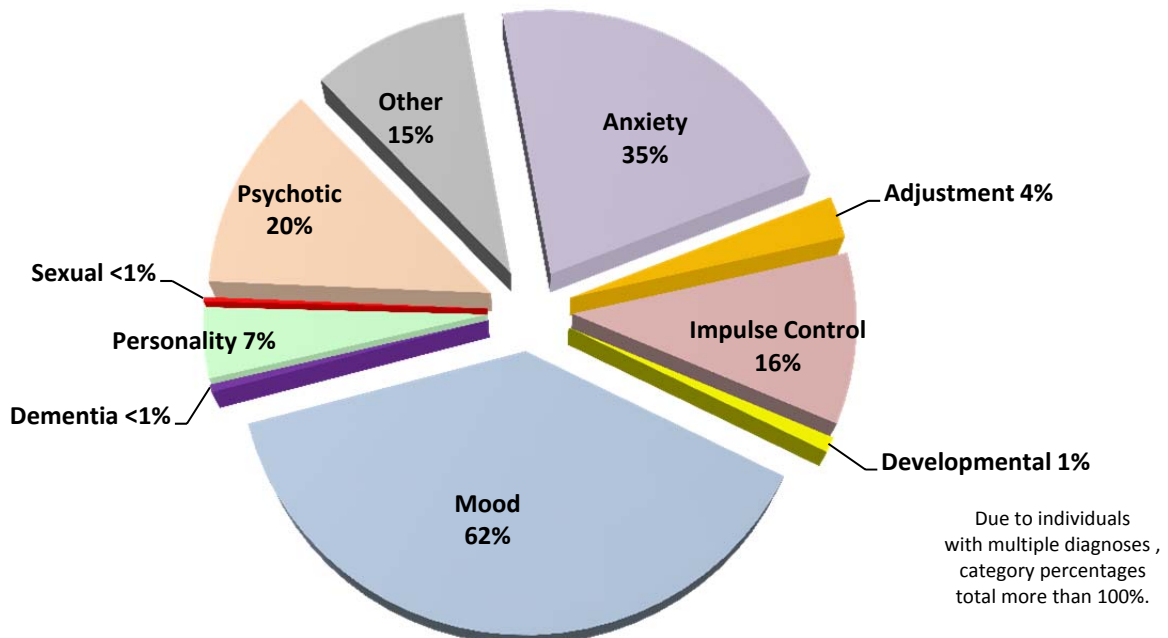
Figure 4: Hospital Admission Rate Per 10,000 Population for Mental Disorders: Missouri, Calendar Year 2014



Source: Missouri Department of Health and Senior Services, 2016.

Mental Health centers or clinics funded by the Missouri Division of Behavioral Health provided psychiatric services to 77,000 Missouri adults and children in fiscal year 2015. Most of these consumers had a serious mental illness characterized by a mood, anxiety, or psychotic disorder. The median age was approximately 35 with slightly more females than males. Nearly three-fourths were Caucasian and one-fifth were African-American. One-half were self-referred to treatment or by a concerned family member or friend.

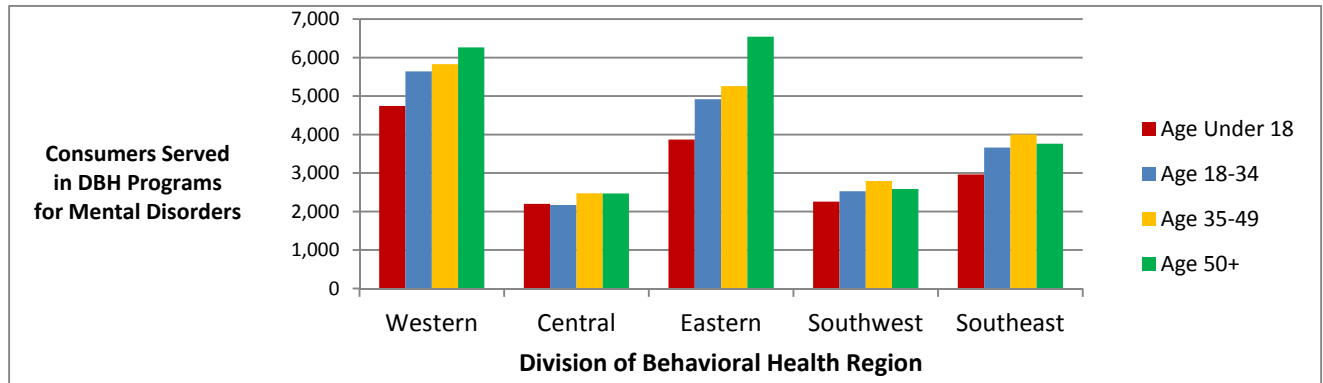
Figure 5: Percentage of Consumers in Mental Illness Diagnosis Categories in DBH Treatment Programs, FY 2015.



Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

Children and youth under age 18 comprise 21% of the individuals treated for mental disorders in DBH programs, compared to only 6% of those treated for substance use disorders. One-fourth of those treated for mental disorders are 18-34 years of age and about one-fourth are 35-39. The DBH Western region has the most treatment consumers. However, consistent with prevalence estimates, residents of the Southeast region have the highest treatment rate in DBH mental health programs.

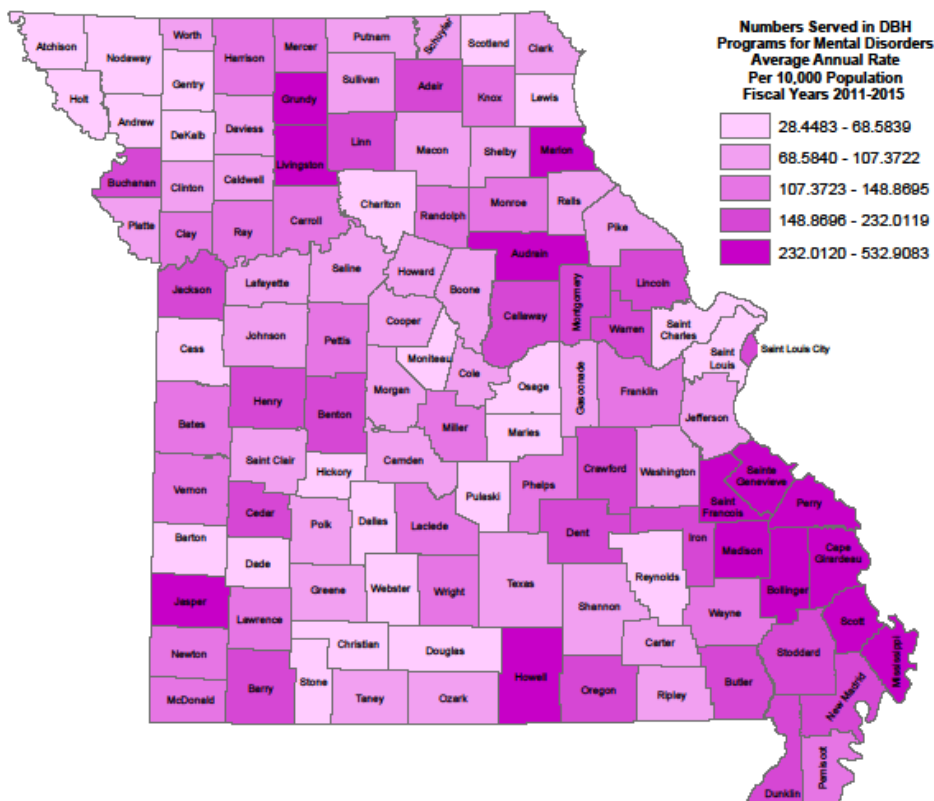
Figure 6: Individuals Served in DBH Treatment Programs by Region and Age Group, Fiscal Year 2015.



Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

Three survey years from the NSDUH indicate that 20.7% of residents in the Southeast Region have any mental illness (AMI) in the past-year, including 6.1% who have past-year serious mental illness (SMI). The region ranks highest in the estimated percentage with SMI and in the 5-year average annual psychiatric treatment rate of 194 per 10,000 population. In contrast, the Eastern Region has the lowest estimated percentages for AMI (17.9%) and SMI (4.4%) and the lowest annual treatment rate of 91 per 10,000 population. Mental health treatment rates vary considerably by county, ranging from 28 to 532 per 10,000 population.

Figure 7: DBH Treatment Rates for Mental Disorders by County of Residence of Consumers, Fiscal Years 2011-2015.

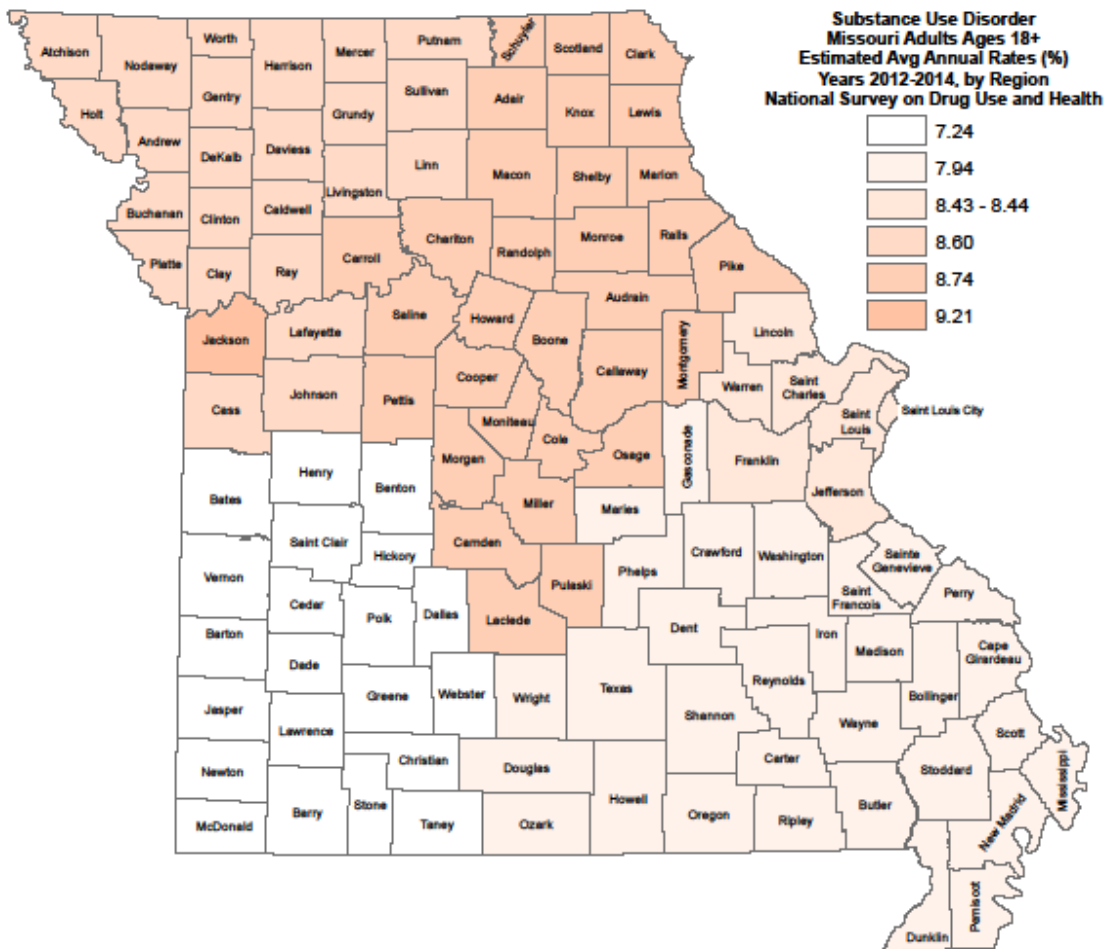


Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

PREVALENCE OF SUBSTANCE USE DISORDERS

Estimated rates of substance use disorders are highest among adults in the Kansas City area. Based on Missouri data from the 2012-2014 NSDUH, an estimated 8.3% of Missouri adults have a substance use disorder (SUD). Rates range from 7.2% in southwest Missouri to 9.2% in Jackson County. Among adolescents 12-17 years of age, 5.3% have a SUD. The adolescent rates have little variance throughout Missouri.

Figure 8: Adult Substance Use Disorder Rates in Missouri



Source: National Survey on Drug Use and Health, 2012-2014 sub-state estimates.

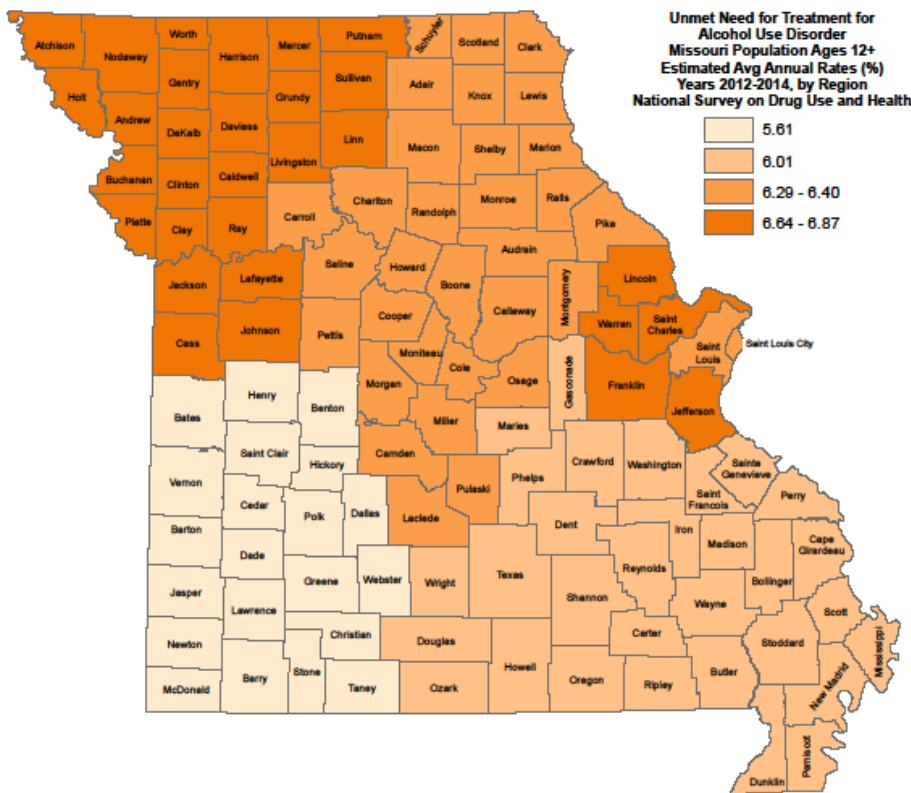
More Missouri adolescents are dependent on illicit drugs than on alcohol. Based on Missouri data from the 2013-2014 NSDUH, an estimated 9,000 Missouri youth ages 12-17 have a past-year drug dependency and an additional 5,000 experience problems related to illicit drug use. About 5,000 are alcohol dependent and 8,000 experience alcohol related problems. Among 23,000 adolescents with substance use disorders, about 4,000 have problems with both alcohol and illicit drugs.

Among Missouri adults, alcohol dependence continues to be more prevalent than dependence on other drugs. Data from the 2013-2014 NSDUH indicate an estimated 136,000 adults age 18 and older are dependent on alcohol and an additional 171,000 experience problems related to their drinking. The survey also estimates that 91,000 Missouri adults are dependent on illicit drugs, with an additional 24,000 experiencing drug related problems. Approximately 46,000 of the 376,000 adults with substance use disorders have problems with both alcohol and illicit drugs.

Only 7% of Missouri residents with an alcohol use disorder are receiving adequate treatment. Among the estimated 320,000 Missouri residents with an alcohol use disorder, 310,000 are not receiving any treatment or a sufficient amount of treatment in programs specializing in substance rehabilitation. The estimates are based on three years of Missouri data from the NSDUH. In fiscal year 2015, approximately 12,000 adolescents and adults primarily needing alcohol treatment and 6,000 with a secondary need for alcohol treatment—a total of 18,000—were admitted to DBH-funded programs. Data from the National Survey of Substance Abuse Treatment Services (N-SSATS) indicate that DBH programs provide about 80% of Missouri’s specialized substance use treatment. Thus, it is likely that only 22,000-23,000 of the 320,000 with alcohol use disorders—about 7%—are receiving any specialized services.

The 310,000 with an unmet need for alcohol treatment constitute 6.3% of the Missouri population ages 12 and older. This unmet need ranges from 5.6% of the population in the Division of Behavioral Health (DBH) Southwest region to nearly 6.9% in the Western region which encompasses Kansas City and northwest Missouri. Among those needing alcohol treatment are 12,000 adolescents, 82,000 young adults aged 18-25, and 217 adults over age 25.

Figure 9: Percentage of Missouri Residents Needing but Not Receiving Treatment for Alcohol Use Disorders: Annual Rate for Years 2012-2014

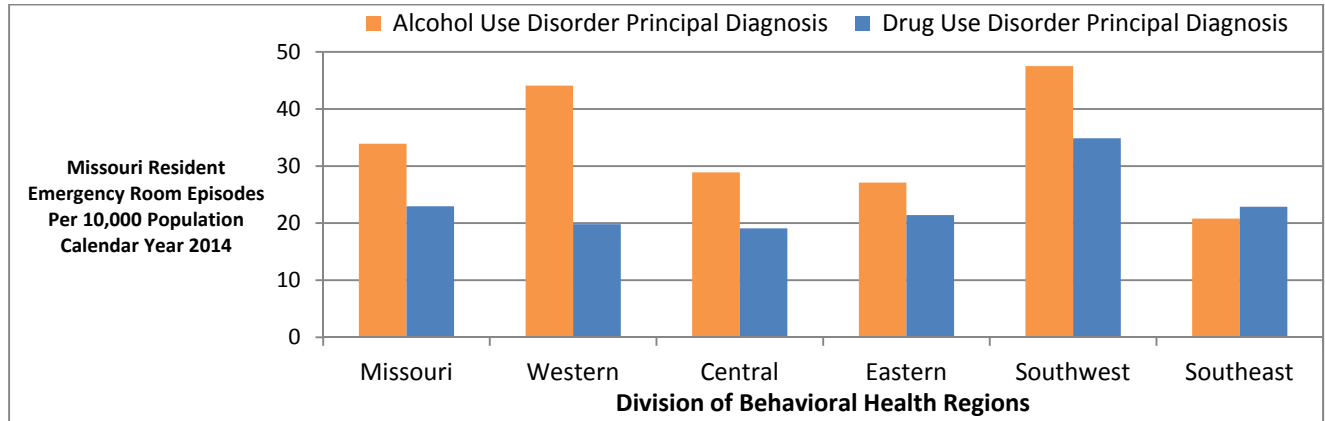


Source: National Survey on Drug Use and Health, 2012-2014 sub-state estimates.

More than 110,000 Missouri residents have an unmet need for drug treatment. The 2013-2014 NSDUH estimates that 129,000 Missouri residents have illicit drug use disorders, and that 112,000 need—but are not receiving—treatment for these disorders. This unmet need comprises 2.1% of the Missouri population ages 12 and older. There is little variance in this rate among regions of the state, although there is considerable geographic variability in the specific drugs involved. Approximately 99,000 Missouri adults and 13,000 adolescents needed but did not receive treatment in a specialized rehabilitation program for a past-year drug use disorder. Among the adults, 45,000 were 18-25 years of age and 54,000 were older than 25.

The large unmet need for alcohol and drug treatment is reflected in Missouri's emergency room encounters. In 2014, hospital emergency rooms responded to 20,000 Missouri residents who had a principal diagnosis of alcohol use disorder and 14,000 with a principal diagnosis of drug use disorder. In addition, more than 27,000 individuals entering emergency rooms had a secondary diagnosis of alcohol use disorders and 27,000 had drug use disorders, with some overlap in the two groups.

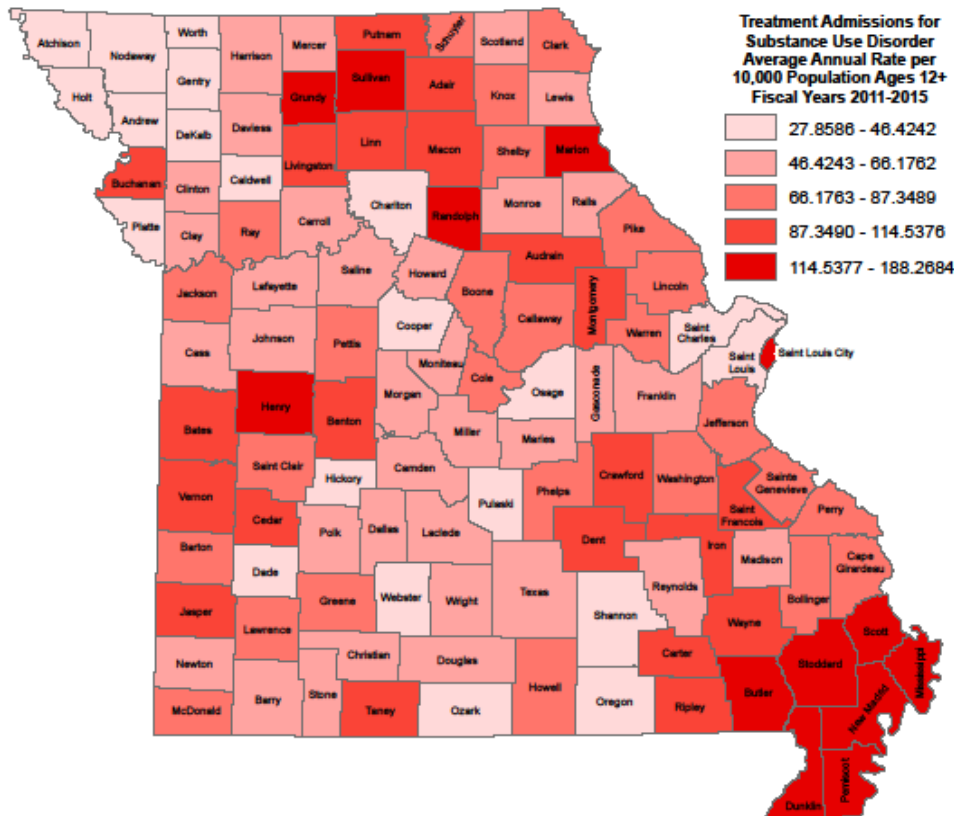
Figure 10: Emergency Room Episodes Attributed to Alcohol and Drug Use Disorders, Rates per 10,000 Population, 2014



Source: Missouri Department of Health and Senior Services, 2016.

Treatment admission rates for substance use disorders vary considerably across Missouri. In fiscal year 2015, the statewide rate for treatment of any substance disorder in Division of Behavioral Health programs was 65.7 per 10,000 population ages 12 and older. During the past five years, county average annual admission rates ranged from 28 per 10,000 population to 188 per 10,000. Residents in clusters of north-central and southeast Missouri counties had some of the highest substance treatment rates.

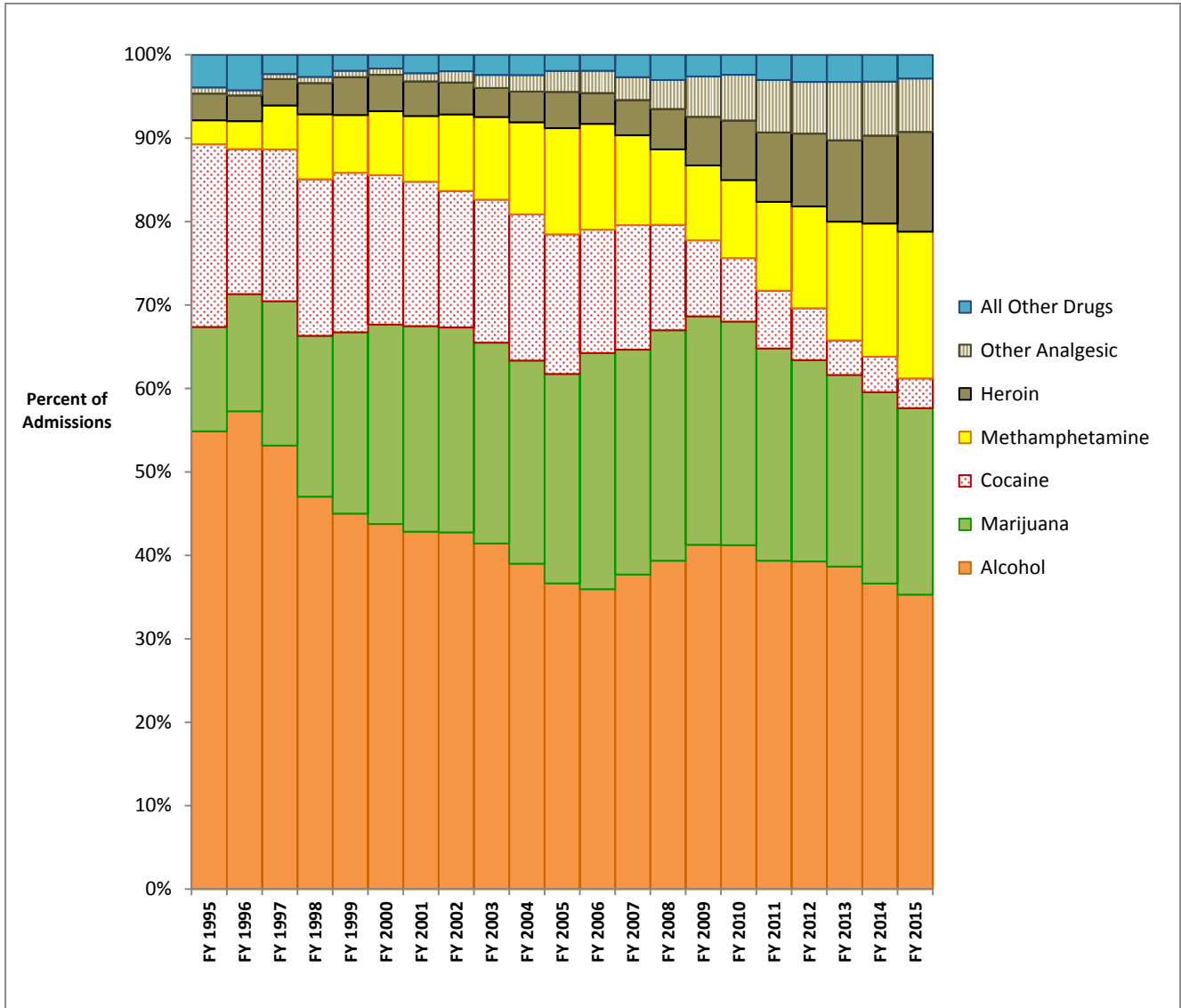
Figure 11: DBH Treatment Admission Rate for Substance Use Disorders by County of Residence, Fiscal Years 2011-2015



Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

The portion of DBH treatment admissions for alcohol use disorders is declining. Twenty years ago, 55% of DBH treatment admissions were primarily for alcohol. Today, alcohol use disorders account for only 35% of admissions. Treatment rates for alcohol are highest among Southwest region residents at 29.5 per 10,000 population (ages 12 and older) and lowest in the Eastern region encompassing Saint Louis.

Figure 12: Missouri Department of Mental Health Treatment Admissions by Drug Category, Fiscal Years 1995-2015.



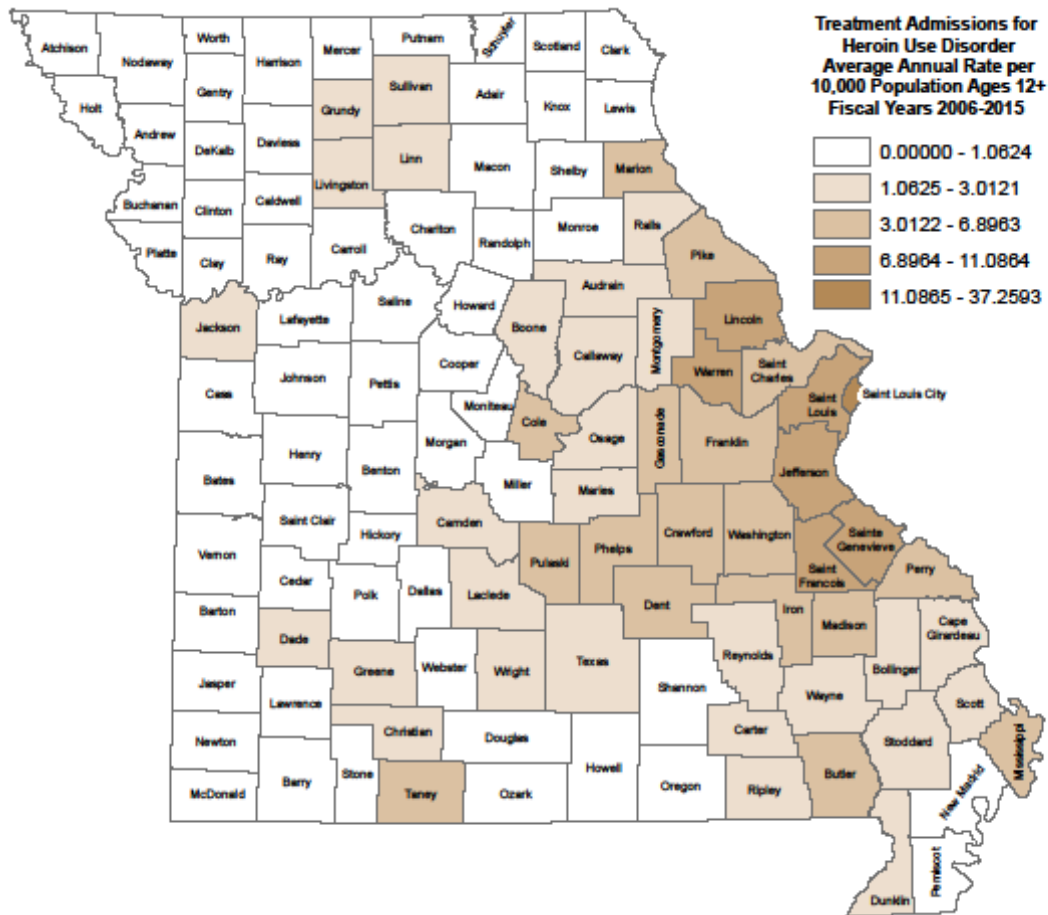
Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

Marijuana treatment admissions in FY 2015 were nearly 4,000 fewer than in their peak year. Marijuana was identified as the primary problem in 7,600 treatment admissions in FY 2015 compared to 11,500 in FY 2006 and accounted for 22% of FY 2015 treatment admissions. Residents of the Southeast Region have the highest admission rate for marijuana at 22.5 per 10,000 population ages 12 and older. The Eastern Region has the lowest marijuana treatment rate at 10.3 per 10,000.

Nearly 6,000 treatment admissions were primarily for meth use in FY 2015. There were a record number of admissions for methamphetamine despite a decline in meth lab confiscations since 2011. The Southwest Region had the highest meth treatment rate at 23.0 per 10,000 population, followed by the Southeast Region at 18.5 per 10,000. In contrast, the meth treatment rate among residents of the Eastern Region was only 2.8 per 10,000.

Heroin has emerged as a major treatment focus in eastern Missouri. Non-medical use of pain relievers is a big factor in the estimated 14,000 Missouri adolescents and 115,000 adults with drug use disorders. Based on the 2013-2014 NSDUH, an estimated 21,000 adolescents and 181,000 adults were past-year users of a pharmaceutical-type pain reliever without a prescription. The similarity of effects—and cross-tolerance—between pharmaceutical and illicit opioids is contributing to an increase in heroin addiction. In FY 2015, more than 4,000 individuals—many in their 20’s and 30’s—were admitted to DBH-funded treatment programs primarily for heroin use, and more than 2,000 for the use of other analgesics. These drugs accounted for 18% of treatment admissions in FY 2015 compared to only 4% in FY 1995. More than three-fourths of the heroin admissions were among residents of the Eastern Region.

Figure 13: DBH Treatment Admission Rate for Heroin by County of Residence for 10-Year Period, Fiscal Years 2006-2015.



Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

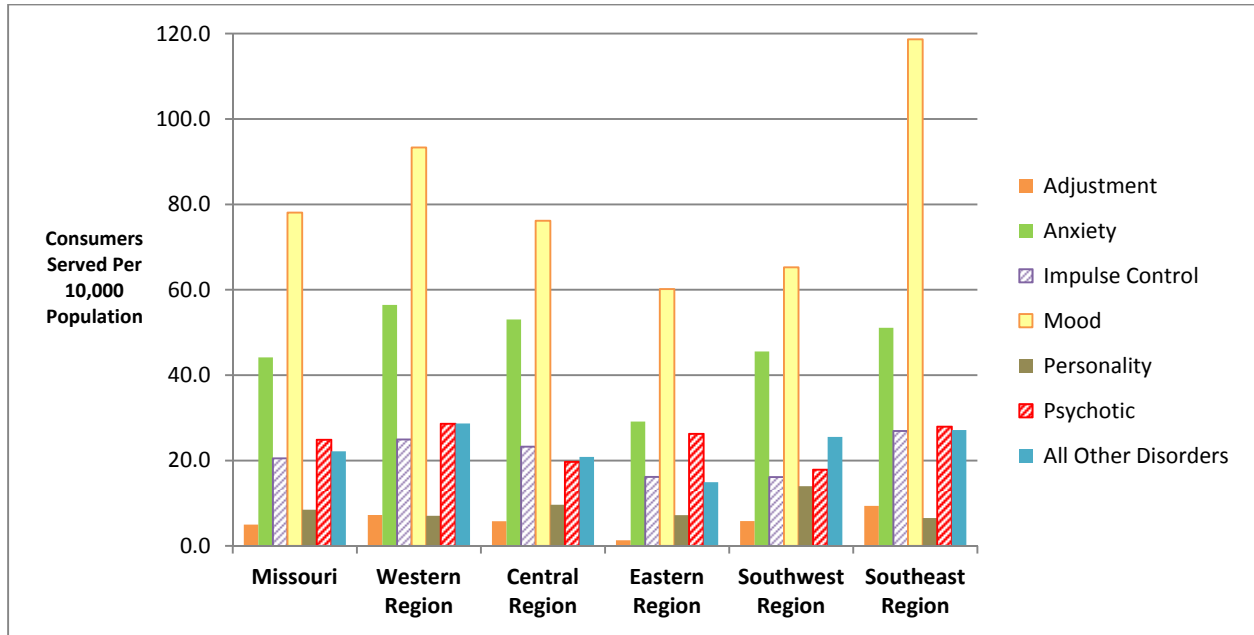
Treatment admissions for prescription drug use are declining. There were 1,200 admissions for prescription drug disorders in DBH substance treatment programs in fiscal year 2015, the lowest total in several years. Treatment rates for prescription drug use were highest in the Southeast Region (4.2 per 10,000 population ages 12 and older) and the Southwest Region (3.7 per 10,000) and lowest in the Eastern Region (1.3 per 10,000).

Cocaine admissions declined to only 1,200 in FY 2015 compared to more than 7,000 10 years ago. Most of those entering treatment for cocaine use were from the Eastern and Western regions, with rates of 3.1 per 10,000 population. The Southwest Region had the lowest cocaine admission rate of only 0.6 per 10,000.

REGIONAL DIFFERENCES IN TREATMENT SERVICES

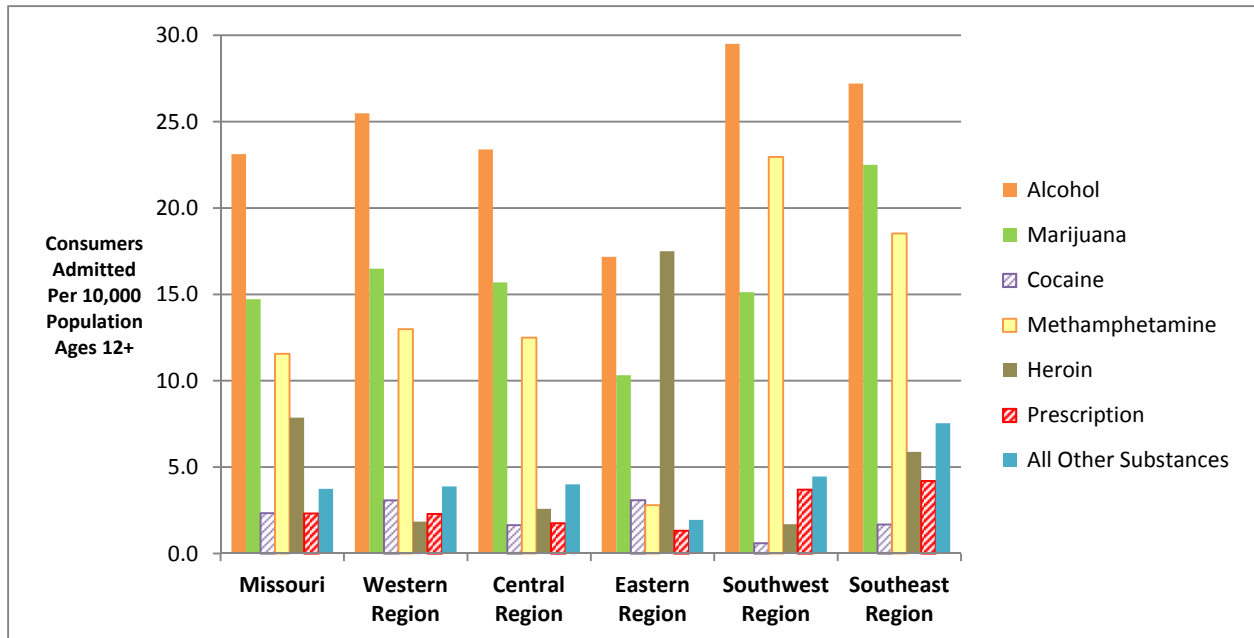
There are notable regional variations in treatment rates for specific mental and drug use disorders. In summarizing treatment admissions and numbers served in Missouri Division of Behavioral Health (DBH) programs, treatment rates are highest for mood disorders in the DBH Southeast and Western planning regions; anxiety disorders in the Western and Central regions; alcohol use disorders in the Southwest and Southeast regions; marijuana use disorders in the Southeast region; meth use disorders in the Southwest and Southeast regions; and heroin use disorders in the Eastern region.

Figure 14: Consumers Served in DBH Treatment Programs by Mental Illness Category, Rate Per 10,000 Population, Fiscal Year 2015.



Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

Figure 15: Consumers Admitted to DBH Treatment Programs by Primary Drug Category, Rate Per 10,000 Population Ages 12 and Older, Fiscal Year 2015.

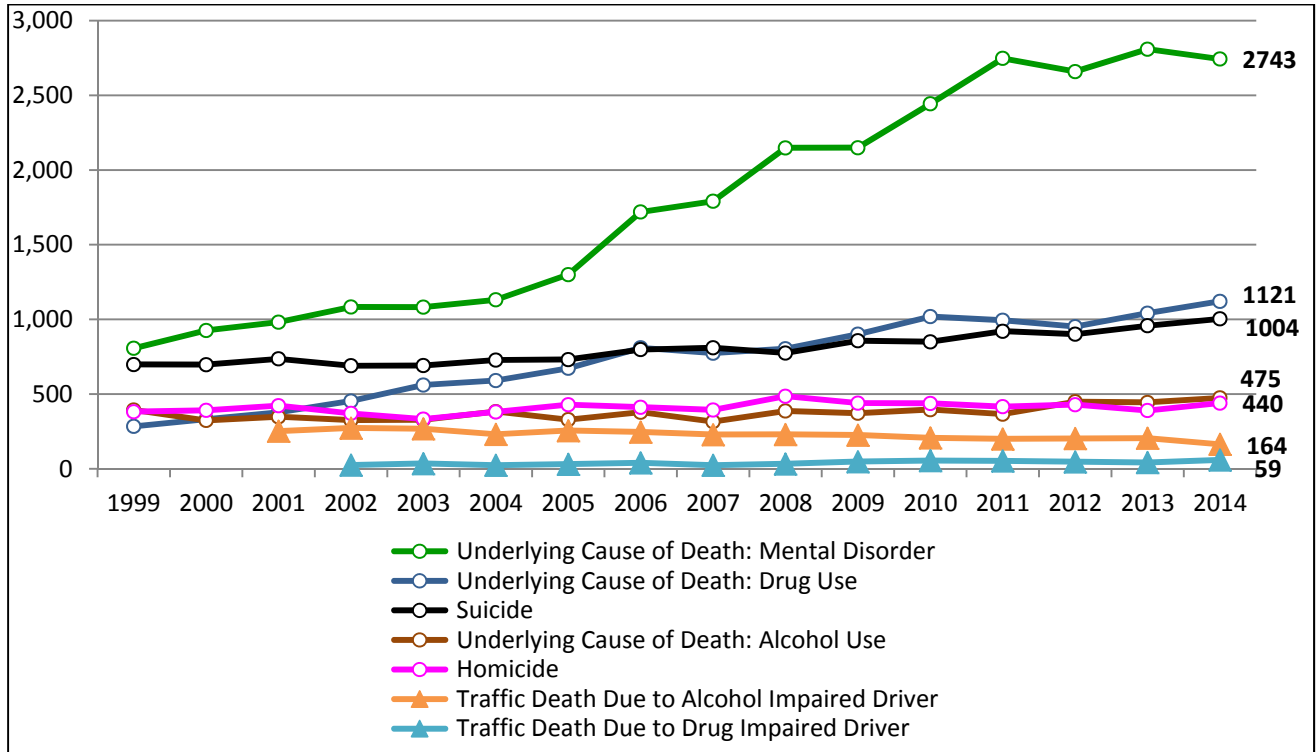


Data Source: Missouri Department of Mental Health, Customer Information Management, Outcomes & Reporting (CIMOR) System.

DEATHS AND BEHAVIORAL IMPACTS

Drug deaths and suicide deaths reached have reached record highs. The number of suicides among Missouri residents topped 1,000 for the first time in 2014, with a rate of 16.6 per 100,000 population. Deaths with drug use as the underlying cause climbed to 1,121 and a rate of 18.5 per 100,000 population. Fatal traffic crashes attributed to drug-impaired drivers also reached a new high with 55 crashes and 59 deaths.

Figure 16: Missouri Deaths Due to Selected Causes, with 2014 Totals



Data Sources:

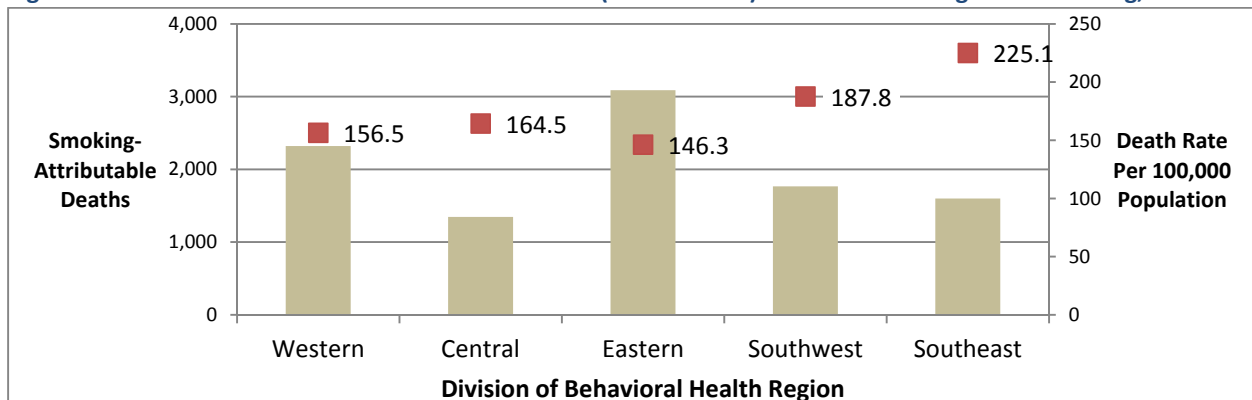
Missouri Department of Health and Senior Services

Missouri Department of Public Safety, Missouri State Highway Patrol

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, WONDER online database.

More than 10,000 Missouri residents again died due to cigarette smoking. In 2014, the smoking-attributable statewide death rate remained at 167 per 100,000 population. The DBH Eastern region had the most smoking related deaths but the lowest death rate. The death rate due to smoking was highest in the DBH Southeast region at 225 per 100,000 population.

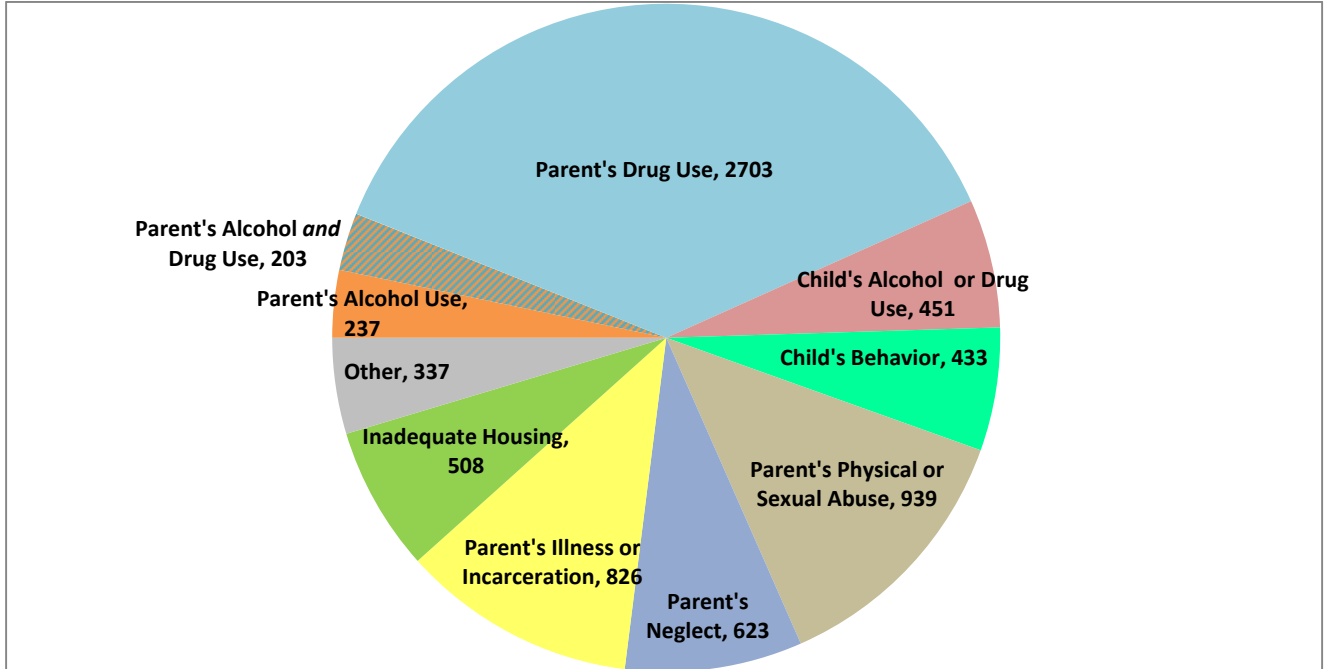
Figure 17: Missouri Resident Deaths and Death Rates (Red Markers) Attributable to Cigarette Smoking, 2014



Data Source: Missouri Department of Health and Senior Services

Nearly one-half of the children removed from their homes or separated from their parents by juvenile courts are placed in alternate care due to alcohol and drug use. The percentage of placements due to parental alcohol and/or drug use continues to rise, reaching 43% of all placements in 2014. An additional 6% of placements resulted from alcohol and drug use by the children. Substance use and mental disorders also often contribute to other removal conditions.

Figure 18: Missouri Out-of-Home Placements of Children by Removal Reason, 2014

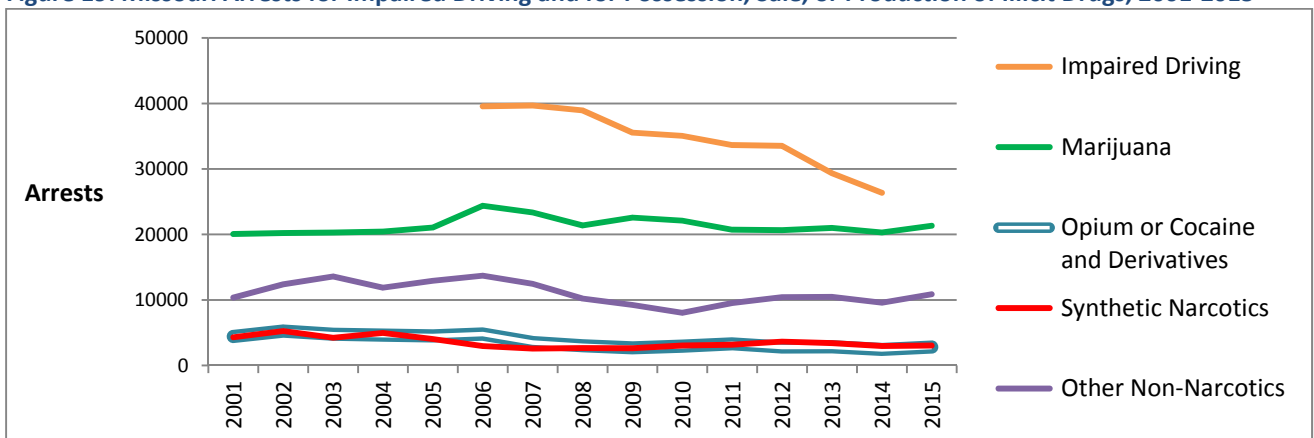


Data Source: Missouri Department of Social Services.

ARRESTS

Missouri averages over 39,000 arrests per year for possession, sale, or production of illicit drugs. During the past 15 years, marijuana offenses have averaged over 21,000 per year and 54% of drug arrests. Non-narcotic drugs have comprised 28% of arrests, opium or cocaine and their derivatives (such as heroin and crack) 9%, and synthetic narcotics 9%. The peak year for drug arrests was 2006 with nearly 46,000 arrests. Arrests for driving under the influence of alcohol or drugs averaged more than 34,000 per year from 2006 to 2014 but have declined continuously since 2007. Methamphetamine lab confiscations also decreased—to only 507—in 2015.

Figure 19: Missouri Arrests for Impaired Driving and for Possession, Sale, or Production of Illicit Drugs, 2001-2015



Data Sources: Missouri Department of Public Safety, Missouri State Highway Patrol, Driving While Intoxicated Tracking System (DWITS); U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reports.