About the Programs
In Missouri, the Department of Mental Health (DMH) is the state authority responsible for developing and implementing a statewide response addressing substance use disorders impacting Missouri families and communities. DMH provides intervention, treatment, and recovery support services through contracted community-based and faith-based service providers. DMH works closely with the Department of Social Services for the coordination of services for the state’s Medicaid population and with the Department of Corrections for the coordination of services for the supervised offender population.

Authorization for Programs
RSMo 631.010 and 191.831 for substance use disorder treatment programs and RSMO 302.010, 302.304, 302.540, 577.001, 577.041, 577.049, and 631.010 for the substance abuse traffic offenders program.

Funding
Substance use disorder treatment programs are funded by about $38.6 million in state general revenue which generates an additional $62.0 million in matched federal funding including Medicaid and Substance Abuse Prevention and Treatment Block Grant.

Prevalence of Substance Use in Missouri
- **General Population:** Approximately 419,000 Missourians struggle with a substance use disorder. Of these, 17,000 are between the ages of 12 and 17 (SAMHSA, 2015).
- **Community-Supervised Offender Population:** In Missouri, approximately 14,100 parolees and 23,900 probationers need substance use disorder treatment (Missouri Department of Corrections, 2015a).
- **Veterans Population:** Of the approximately 494,300 Missouri Veterans, an estimated 6.2 percent or 30,600 have a substance use disorder (Missouri Department of Public Safety, 2015; SAMHSA, 2015b).
- **Pregnant Women:** Of the approximately 83,600 pregnancies in the state, about 8,400 are women who are struggling with an alcohol or drug problem (Missouri Department of Health & Senior Services, 2014; SAMHSA, 2015b).

Number Served
Special Populations
Received treatment for a substance use disorder in FY 2015:

- 733 Pregnant women
- 2,904 Adolescents
- 2,322 Veterans
- 19,927 Community-supervised offenders on probation or parole
- 1,918 Homeless Missourians
- 11,628 Parents with dependent children
- 2,598 Drug Court participants
- 16,999 Individuals with a co-occurring mental illness (5,950 with a serious mental illness)
- 15,790 Medicaid enrollees, including 7,738 partially or totally disabled
*Recovery Supports are funded through the federal Access to Recovery (ATR) grant. The Substance Abuse Traffic Offenders’ (SATOP) Program is largely funded through offender fees. Substance Abuse Treatment is funded through a combination of state and federal funding and includes non-SATOP treatment programs.

Evidence of Effectiveness

Community-Based Treatment Produces less Re-Incarceration

Research has shown that substance use disorder treatment during and after incarceration reduces re-incarceration rates (National Institute on Drug Abuse, 2012). Missouri’s data shows that offenders who complete community-based substance use disorder treatment have a lower re-incarceration rate compared to those who did not receive any treatment but needed treatment.
Medication Assisted Treatment

Medication Assisted Treatment (MAT) combines FDA-approved addiction medications with counseling. Addiction medications have been approved for the treatment of alcohol and opiate use disorders. Research shows that when treating substance use disorders, a combination of medication and behavioral therapies is most successful (SAMSHA, 2014). Missouri’s data shows that consumers receiving MAT have better retention in treatment compared to those in traditional treatment. In addition those with MAT have comparable outcomes compared to those without MAT even though the MAT group tends to have greater problem severity (i.e. longer history of substance use, additional psychiatric issues, more recent substance use, unemployment, etc.)

Data source: Treatment discharges in FY 2015.

DMH is collaborating with the Department of Corrections on a pilot study looking at the effectiveness of initiating the use of Vivitrol prior to release from the correctional facilities and continuing use in the community. Vivitrol blocks opiate receptors in the brain thereby eliminating the euphoric effects and preventing cravings for alcohol and opiate drugs such as heroin. It is administered in the form of a shot once per month. These individuals will receive follow-up medication and substance use counseling through DMH contracted community agencies. It is anticipated that these individuals will be less likely to relapse to alcohol or opiate use upon their release from prison, thereby reducing the likelihood of re-arrest and re-incarceration. The University of Missouri-St. Louis, Missouri Institute of Mental Health is conducting the evaluation of this project. Outcome data are collected on offenders for a period of two years after starting the program.
Community-Based Treatment is Cheaper than Incarceration

The potential cost savings from community-based substance use disorder treatment in lieu of incarceration has been recognized in several large-scale studies including the California Treatment Outcome Project and the National Treatment Improvement Evaluation Study (Ettner, S.L. & et al., 2006; SAMHSA, 1997). In Missouri, the average prison stay for an offender with a drug-related offense is 318 days at an average cost of $57.76 per day - yielding an average cost per stay of $18,368. The average length of engagement in community-based treatment is 81 days with an average cost of $1,793. Intervention fees collected from offenders help pay a portion of the cost for community corrections and intervention services for offenders under community supervision.

<table>
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<tr>
<th>Incarceration vs. Treatment: Average Cost per Person in FY 2014</th>
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<tr>
<td>$20,000</td>
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<tr>
<td>Incarceration</td>
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<td>Community-Based Substance Abuse Treatment</td>
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<td>$18,368</td>
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<td>$1,793</td>
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Data source: DOC and DMH information systems.

Treatment for Pregnant Women Increases Likelihood of Healthy Babies

According to the National Household Survey on Drug Use and Health, approximately 7.9 percent of pregnant women have an alcohol addiction problem, and 3.7 percent of pregnant women have an illicit drug problem (SAMHSA, 2015b). Research has shown that pregnant women who need and receive substance use treatment are more likely to receive prenatal care; are more likely to reduce or abstain from alcohol, drugs, and tobacco use; and have better perinatal outcomes (Brady, T.M. & Ashley, O.S., 2005). Better outcomes are obtained for women who enter treatment early in their pregnancy. Lifetime cost of a child born with Fetal Alcohol Syndrome is estimated at $2 million (SAMHSA, 2012).

Drug-Free Births in CSTAR Programs

<table>
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<tr>
<th>Drug-Free Births in CSTAR Programs</th>
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<tr>
<td>FY 2013</td>
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<tr>
<td>FY 2015</td>
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<tr>
<td>Total Babies Born</td>
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<td>185</td>
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<td>220</td>
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<td>205</td>
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<tr>
<td>Babies Born Drug-Free</td>
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<tr>
<td>122</td>
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<tr>
<td>146</td>
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<td>121</td>
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*Fewer pregnant women were treated in treatment programs in FY 2013 compared to FY 2014.

Data source: Treatment Episode Dataset, DMH information system.
Drug Testing in the Opioid Programs
There is considerable research that shows that Opioid Treatment can reduce: illicit drug use, including injection drug use; risk of overdose; risky sexual behavior; transmission of infectious diseases (i.e. HIV, hepatitis B or C, bacterial infections); and criminal activity in addition to improving pregnancy outcomes (CDC, 2002). Most individuals in Missouri’s Opioid Treatment programs do not test positive for illicit drugs when subjected to random drug tests.

![Percent of Negative Drug Tests for the CSTAR Opioid Program](image)

Data source: Results of random drug tests collected from contracted agencies.

DWI Recidivism
In Missouri, completion of the Substance Abuse Traffic Offender Program (SATOP) is a required element of driver license reinstatement. Research has shown that combining alcohol treatment with either driver license restriction or suspension is associated with lower DWI recidivism rates compared to other interventions such as jail (DeYoung, D. J., 1997). Most individuals who complete SATOP do not receive an additional DWI five years post-graduation. Of those that graduated during FY 2010, 85.6 percent have not re-offended by FY 2015.

![No DWI within 5 years of SATOP Completion](image)

Data source: SATOP data, DMH information system.

Recently, the SATOP program has added an intensive treatment component for chronic, repeat offenders participating in Drug/DWI Court. A Michigan study found that DWI Court with treatment significantly reduced re-arrest when compared to DWI offenders on traditional probation. One year re-arrest rates were 4.3 percent for DWI Court
participants vs. 15.2 percent for offenders on traditional probation (NPC Research, 2008). In Missouri’s Serious and Repeat Offender Program, 2.1 percent of the 1,468 FY 2014 graduates re-offended within a one year period. This is comparable to the results obtained in the Michigan Study.

**Treatment Recidivism**

While relapse is a common characteristic of the addiction process, most DMH consumers do not cycle in and out of substance use disorder treatment.

### Percent Not Re-Admitted to Treatment within One Year of Discharge

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<thead>
<tr>
<th>Year</th>
<th>Percent Not Re-Admitted within One Year</th>
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<tbody>
<tr>
<td>FY 2012</td>
<td>69.0%</td>
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<tr>
<td>FY 2013</td>
<td>71.0%</td>
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<tr>
<td>FY 2014</td>
<td>70.9%</td>
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Data source: FY 2012-FY 2014 Treatment Discharges, DMH information system.

**Transition from Detox to Treatment Increases Likelihood of Success**

From SAMHSA’s Detoxification and Substance Abuse Training Manual:

- *Detox patients are in a crisis.*
- *Research shows that detox is often followed by a reduction in drug use and a desire to seek treatment.*
- *Linkage from detox to treatment leads to an increase in recovery and a decrease in repeated detox and treatment services.*
- *Success at recovery depends on continuation of treatment after detox* (SAMHSA, 2009).

### Percent Transitioning from Detox to Treatment

- **DMH Programs:** 39.4%
- **Missouri Hospitals:** 9.3%
- **U.S. Publicly-Funded Programs:** 10.9%

Data sources: DMH program data based on FY 2015 detox program closures; Missouri hospital data based on Medicaid patients served in FY 2015 who are admitted to substance use disorder treatment within 5 days of hospital discharge as determined from Medicaid claims.; U.S. publicly-funded program data from 2011 Treatment Episode Dataset (SAMHSA, 2014e)
Adolescent School Achievement

Intervention and treatment is important for substance-using adolescents. Research suggests that substance use may impair cognitive development – particularly for heavy substance use. In addition, the association between substance use and antisocial peer groups may reduce school engagement (King, K.M., Meehen, B.T., Trim, R.S., & Chassin, L., 2006.) Missouri’s CSTAR Adolescent Program addresses academic education in the treatment process.

Data source: Treatment Episode Dataset, DMH information system

School-Based Intervention

Missouri’s School-Based Prevention Program (SPIRIT Program) operates in four sites serving six school districts across the state. These districts serve large at-risk student populations based on standardized test scores, graduation rates, substance use prevalence, and juvenile justice referrals. SPIRIT’s program goals are to: 1) delay onset and decrease use of alcohol, tobacco and other drugs; 2) improve overall school performance, and 3) reduce incidents of violence, including bullying. Over a four year period (2011-2014), SPIRIT has been trending downward in cigarette and alcohol use.
Reducing Binge Drinking at Missouri Colleges

Binge drinking has been associated with unintentional and intentional injuries, alcohol poisoning, sexually transmitted diseases, unintended pregnancy, and children born with Fetal Alcohol Spectrum Disorders (CDC, 2012). Funded in part by DMH, Partners in Prevention is a statewide coalition of 21 public and private universities whose mission is to create an environment that supports good decision making in regards to alcohol by the college students who attend the higher education institutions in Missouri. In recent years, the prevalence of binge drinking among Missouri college students has declined.
References


Missouri Intervention and Treatment Programs for Substance Use Disorders


