Trends in drug abuse – Nationally and in Minnesota

Prevalence, prevention, addiction, and treatment

9/30/2010

Carol Falkowski
Drug Abuse Strategy Officer
Minnesota Dept. of Human Services
carol.falkowski@state.mn.us
651-431-2457

Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration (SAMHSA), 2008. "Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics.

Past month illicit drug use among persons age 12 and older in the United States

Past month use of selected illicit drugs among persons age 12 or older:
2002–2009

Source: National Surveys on Drug Use and Health, SAMHSA.
Specific drug used when **Initiating Illicit Drug Use** among past year initiates of illicit drugs aged 12 or older: 2008

![Pie chart showing drug use among initiates](image)

- Marijuana (56.6%)
- Pain Relievers (22.0%)
- Inhalants (9.7%)
- Hallucinogens (3.2%)
- Stimulants (3.0%)
- Cocaine (0.8%)
- Sedatives (0.8%)
- Heroin (0.1%)

**NEW in 2010**

**Synthetic marijuana products**

- Cannabinoid compounds JWH-018 and JWH-073 are produced in a lab and sprayed on herbal mixtures
- Federally unregulated, but banned in a growing number of cities and states
- Marketed as “incense” and sold online and in “head shops”
- Use elevates heartbeat, blood pressure, some vomiting, seizures
- Over 1,300 adverse events nationwide in 2010 (through 9/18)
- 51 cases at Hennepin Regional Poison center in 2010 (through 9/18)
Duluth officials vote to ban synthetic marijuana
August 31, 2010

Duluth, Minn. (AP) — The Duluth City Council on Monday night voted to ban the sale, purchase and possession of synthetic marijuana - a move that makes Duluth the first Minnesota city to outlaw the drug and could lead to a lawsuit from some local retailers.

Fake pot, real danger
Calls to poison-control centers have spiked with wider use of synthetic marijuana. Some are moving to ban the substance.
By Nick Ferraro
St. Paul Pioneer Press
9/19/2010

Substance use:
Minnesota compared with other states

Illicit Drug Use in Past Month among Persons Aged 12 or Older by State

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2006 and 2007. No differences across age groups
Nonmedical Use of Pain Relievers in Past Year among Persons Aged 12 or Older by State

Cigarette Use in Past Month among Persons Aged 12 or Older, by State

Substance use in Minnesota:

Illegal drugs — lower than most states (except youth MJ)

Alcohol — higher than most states
Binge Alcohol Use in Past Month among Persons Aged 18 - 25 by State


Binge Alcohol Use in Past Month among Persons Aged 26 and Older by State


Used alcohol one or more times in past year
All students

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 6</th>
<th>Grade 9</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>62.1%</td>
<td>69.0%</td>
<td>69.7%</td>
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<tr>
<td>1995</td>
<td>63.8%</td>
<td>60.6%</td>
<td>53.6%</td>
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<tr>
<td>1998</td>
<td>24.8%</td>
<td>22.9%</td>
<td>19.2%</td>
</tr>
<tr>
<td>2001</td>
<td>14.1%</td>
<td>11.6%</td>
<td>9.2%</td>
</tr>
<tr>
<td>2004</td>
<td>37.4%</td>
<td>37.4%</td>
<td>37.4%</td>
</tr>
<tr>
<td>2007</td>
<td>62.7%</td>
<td>62.7%</td>
<td>62.7%</td>
</tr>
</tbody>
</table>

Binge drinking (five or more times in a row) in the past two weeks
All students

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 9</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>32.7%</td>
<td>21.4%</td>
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<tr>
<td>1995</td>
<td>33.7%</td>
<td>21.7%</td>
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<tr>
<td>1998</td>
<td>32.8%</td>
<td>24.3%</td>
</tr>
<tr>
<td>2001</td>
<td>31.9%</td>
<td>19.9%</td>
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<tr>
<td>2004</td>
<td>30.0%</td>
<td>17.1%</td>
</tr>
<tr>
<td>2007</td>
<td>29.1%</td>
<td>15.4%</td>
</tr>
</tbody>
</table>

Used marijuana one or more times in the past year
All students

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 6</th>
<th>Grade 9</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1.4%</td>
<td>2.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>1995</td>
<td>1.4%</td>
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<tr>
<td>2004</td>
<td>31.1%</td>
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<td>31.1%</td>
</tr>
<tr>
<td>2007</td>
<td>30.7%</td>
<td>30.7%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>
Substance use in Minnesota:

Illegal drugs — lower than most states (except youth MJ)

Alcohol — higher than most states
Why youth drinking matters

Consequences of high-risk college drinking

- Lower grades
- Failed courses
- More illnesses
- More STDs
- Blackouts
- Addiction
**Injury** is the leading cause of death among young people in the U.S.

**Alcohol** is the leading contributor to injury deaths.

In the U.S., an estimated 5,000 individuals under age 21 die each year from injuries caused by underage drinking. These include:

- **Motor Vehicle Crashes:** 1,900 deaths
- **Homicides:** 1,600 deaths
- **Suicides:** 300 deaths

**Source:** NIAAA

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**National Longitudinal Epidemiological Study:**

**People who 1st drank before age 15**

40% developed alcoholism

**People who 1st drank at age 21, 22**

10% developed alcoholism

**Source:** Bridget F. Grant, Ph.D., Ph.D., and Deborah A. Dawson, Ph.D., (1998) *Journal of Substance Abuse.* Based on the NIAAA-sponsored National Longitudinal Alcohol Epidemiologic Survey (NLAES), a national probability sample of nearly 43,000 interviews with field work conducted by the U.S. Census Bureau in 1992.

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**Drug Use and Crime**
Percentage of male arrestees who tested positive for drugs in Hennepin County: 2007 - 2009


Small toxic meth lab seizures in Minnesota: 2000 - 2008


What is PREVENTION?

The role of prevention is to create healthy communities in which people have quality of life.

SAMHSA – Substance Abuse and Mental Health Services Administration, US Dept of Health and Human Services, Center for Substance Abuse Prevention
National Prevention Platform:

^ Healthy environments in work and school
^ Supportive communities and neighborhoods
^ Connections with families and friends
^ Drug-free and crime-free

Preventing Drug Use: A Research-based Guide

www.drugabuse.gov

Effective prevention programs reduce risk factors

• ineffective parenting/chaotic home environment
• early onset of use
• lack of mutual attachments/nurturing
• inappropriate behavior in the classroom
• failure in school performance
• poor social coping skills
• affiliations with deviant peers
• perceptions of approval of drug-using behaviors in the school, peer, and community environments

www.drugabuse.gov
Effective prevention programs enhance protective factors

- strong family bonds
- parental monitoring
- parental involvement
- success in school performance
- prosocial institutions (e.g., such as family, school, and religious organizations)
- conventional norms about drug use

Effective prevention programs include interactive skills-based training

- Resist drugs
- Strengthen personal commitments against drug use
- Increase social competency
- Reinforce attitudes against drug use

Effective prevention programs are family-focused

- Provide greater impact than parent-only or child-only programs
- Include at each stage of development
- Involve effective parenting skills
Effective prevention programs involve communities and schools

- Encourage media campaigns and policy changes
- Strengthen norms against drug use
- Address specific nature of local drug problem

Effective prevention programs are long-term

- Prevention programs should be long-term with repeated interventions (i.e., booster programs) to reinforce the original prevention goals.
- Research shows that the benefits from middle school prevention programs diminish without follow-up programs in high school.

Effective prevention programs must target all forms of drug use and be culturally specific.
Same message. Different messengers.

Schools, homes, communities

What about prevention in Minnesota?

Regional Prevention Coordinators
Minnesota’s Web-based Indicators of Substance Abuse

Substance Use in Minnesota, an interactive web site devoted to alcohol, tobacco and other drug (ATOD) consumption and consequence statistics, includes over 70 indicators from ten state data sources.

This website provides one-stop-shopping for information that can be utilized by communities and prevention professionals for planning, monitoring, and evaluation.


Minnesota’s Prevention Outcomes

Due to the funds from the SAMHSA Block Grant:

- 1.2 million Minnesotans received primary prevention services through presentations, school-based curricula, public service announcements and other media.
- Community coalitions provided activities and environmental changes that affected over 3,083,813 individuals in Minnesota.
- 9,086 registered individuals participated in 7,015 recurring event activities, and 81,974 attended single events.
- Synar inspections of retail tobacco outlets found that 90 percent of tobacco retailers obeyed the law and did not sell tobacco to minors in Minnesota in 2009.
Minnesota’s Prevention Outcomes

Prevention Efforts Are Key to Reducing Underage Drinking:

Alcohol use shows an overall declining pattern among 12th graders in Minnesota, from 80.1 percent reporting any alcohol use during past year in 1992 to 62.7 percent in 2007, and for 9th graders from 63.8 percent in 1992 to 37.4 percent in 2007.

Prevention Efforts Are Key to Reducing Underage Smoking:

Cigarette use among Minnesota students also continues a downward trend. The current (past 30 day) smoking rate among 12th graders dropped from 42.0 percent in 1998 to 23.0 percent in 2009. For 6th graders the rate dropped from 7 percent in 1998 to 1.5 percent in 2007 and among 9th graders from 29.9 percent in 1998 to 15.4 percent in 2007.

NEW in 2010:

Strategic Prevention Framework/State Incentive Grant (SPF-SIG)

Goal is to provide a SOLID FOUNDATION for DELIVERING and SUSTAINING effective prevention services

- Prevent the onset and reduce the progression of substance abuse, including childhood and underage drinking
- Reduce substance abuse-related problems in communities
- Build lasting prevention capacity at the State, Tribal, and community levels

What is addiction?
Addiction is a chronic, relapsing brain disease characterized by compulsive drug seeking and use, despite harmful consequences associated with use.

Both addiction and heart disease disrupt the functioning of the underlying organ, have serious consequences, are treatable, and last a lifetime.

**THE FAR-REACHING HEALTH IMPACT OF ADDICTION**

- Cardiovascular disease
- Stroke
- Cancer
- HIV/AIDS
- Hepatitis B and C
- Lung disease
- Mental disorders
Why some people get addicted and others do not

- Biology/Genes
- Environment

Brain Mechanisms

Addiction

The developing teenage brain heightens the risk of poor decision-making such as initiating and continuing drug/alcohol abuse.

What about treatment of addiction?
Not everyone who needs addiction treatment receives it.

21.1 Million Needing But Not Receiving Treatment for Illicit Drug or Alcohol Use

Past Year Perceived Need for and Effort made to Receive Treatment among Persons Aged 12+ Needing But Not Receiving Specialty Treatment for Illicit Drug or Alcohol Use

- 95.5% Did Not Feel They Needed Treatment (20,114,000)
- 4.5% Fell They Needed Treatment and Did Not Make an Effort (625,000)
- 21.1 Million Needing But Not Receiving Treatment for Illicit Drug or Alcohol Use

Reasons for Not Receiving Substance Use Treatment among Persons Aged 12+ Who Needed and Made Effort to Get Treatment But Did Not Receive Specialty Treatment and Fell They Needed Treatment:

- Not Ready to Stop Using: 23.9%
- No Program Having Type of Treatment: 11.2%
- No Health Coverage and Could Not Afford Cost: 9.5%
- Might Cause Neighbors/Community to Have Negative Opinion: 3.3%
- No Program Having Ability to Handle Problem without Treatment: 1.3%

What is effective addiction treatment?

Principles of Drug Addiction Treatment: A Research-based Guide

www.drugabuse.gov

Is drug addiction treatment worth the cost?

“Substance abuse costs our Nation over one half-trillion dollars annually, and treatment can help reduce these costs. Drug addiction treatment has been shown to reduce associated health and social costs by far more than the cost of the treatment itself.

According to several conservative estimates, every $1 invested in addiction treatment programs yields a return of between $4 and $7 in reduced drug-related crime, criminal justice costs, and theft. When savings related to health care are included, total savings can exceed costs by a ratio of 12 to 1.”

Source: National Institute on Drug Abuse, Principles of Addiction Treatment, NCADI publication BKD347
Principles of addiction treatment

- No single treatment is appropriate for all individuals. Matching treatment settings, interventions, and services to each patient’s problems and needs is critical.
- Treatment needs to be readily available. Treatment applicants can be lost if treatment is not immediately available or readily accessible.
- Effective treatment attends to multiple needs of the individual, not just his or her drug use. Treatment must address the individual’s drug use and associated medical, psychological, social, vocational, and legal problems.

Programs should include strategies to prevent patients from leaving treatment prematurely. Additional treatment can produce further progress.

Principles of addiction treatment

- Treatment needs to be flexible and to provide ongoing assessments of patient needs, which may change during the course of treatment.
- Remaining in treatment for an adequate period of time is critical for treatment effectiveness. The time depends on an individual’s needs. For most patients, the threshold of significant improvement is reached at about 3 months in treatment. Additional treatment can produce further progress. Programs should include strategies to prevent patients from leaving treatment prematurely.
- Individual and/or group counseling and other behavioral therapies are critical components of effective treatment for addiction. In therapy, patients address motivation, build skills to resist drug use, replace drug-using activities with constructive and rewarding non-drug-using activities, and improve problem-solving abilities. Behavioral therapy also facilitates interpersonal relationships.

Matching treatment settings, interventions, and services to each patient’s problems and needs is critical. The time depends on an individual’s needs. For most patients, the threshold of significant improvement is reached at about 3 months in treatment. Additional treatment can produce further progress. Programs should include strategies to prevent patients from leaving treatment prematurely.

Principles of addiction treatment

- Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies. Naltrexone, buprenorphine, and lofexidine are effective for some opiate addicts and some patients with co-occurring alcohol dependence. Nicotine patches or gum, or an oral medication, such as bupropion, can help persons addicted to nicotine.
- Addicted or drug-abusing individuals with coexisting mental disorders should have both disorders treated in an integrated way. Because these disorders often occur in the same individual, patients presenting for one condition should be assessed and treated for the other.
- Medical detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug use. Medical detoxification manages the acute physical symptoms of withdrawal.

Source: National Institute on Drug Abuse, Principles of Addiction Treatment, NCADI publication BKD347.
Principles of addiction treatment

- Treatment does not need to be voluntary to be effective. Sanctions or enticements in the family, employment setting, or criminal justice system can significantly increase treatment entry, retention, and success.
- Possible drug use during treatment must be monitored continuously. Monitoring a patient’s drug and alcohol use during treatment, such as through urinalysis, can help the patient withstand urges to use drugs. Such monitoring also can provide early evidence of drug use so that treatment can be adjusted.
- Treatment programs should provide assessment for HIV/AIDS, hepatitis B and C, tuberculosis and other infectious diseases, and counseling to help patients modify or change behaviors that place them or others at risk of infection. Counseling can help patients avoid high-risk behavior and help people who are already infected manage their illness.

Source: National Institute on Drug Abuse, Principles of Addiction Treatment, NCADI publication BKD347.

Principles of addiction treatment

Recovery from drug addiction can be a long-term process and frequently requires multiple episodes of treatment.

As with other chronic illnesses, relapses to drug use can occur during or after successful treatment episodes. Participation in self-help support programs during and following treatment often helps maintain abstinence.

Source: National Institute on Drug Abuse, Principles of Addiction Treatment, NCADI publication BKD347.

BRAIN RECOVERY WITH PROLONGED ABSTINENCE

Images of dopamine transporter show the potential of the brain to recover after abstinence.
The outcomes of addiction treatment are comparable to the outcomes of other chronic diseases with behavioral components.


Comparison of Relapse Rates Between Drug Addiction and Other Chronic Illnesses

Relapse rates for drug-addicted patients are compared with rates for those suffering from diabetes, hypertension and asthma. Relapse is common and similar across these illnesses (as is adherence to medication). Thus, drug addiction should be treated like any other chronic illness, with relapse serving as a trigger for renewed intervention.

What about addiction treatment in Minnesota?
CCDTF vendor payments in FY 2009:
- $103 million
- 24,800 placements
- $4,162 per placement

Clients in addiction treatment programs per 100,000 population by state: 2008

Clients in addiction treatment in Minnesota (a one-day snapshot taken on 3/31/2008)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>%</th>
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<tbody>
<tr>
<td><strong>OUTPATIENT</strong></td>
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<tr>
<td>Regular</td>
<td>39.9</td>
</tr>
<tr>
<td>Intensive</td>
<td>17.8</td>
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<tr>
<td>Day Treatment</td>
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<tr>
<td>Methadone/Buprenorphine</td>
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<td><strong>RESIDENTIAL</strong></td>
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<td>Short term</td>
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<tr>
<td>Long term</td>
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<tr>
<td><strong>HOSPITAL INPATIENT</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>100.0</td>
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Minnesota Addiction Treatment Outcome Measures
Public patients only - 2008

SOURCE: Drug and Alcohol Abuse Normative Evaluation System (DAANES), Minnesota Dept of Human Services, 2010. These measure refer to the 30 days before treatment admission compared with the 30 days prior to treatment discharge for public pay patients who received treatment in 2008 and whose discharge data were submitted by 11/5/2009.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Before Admission</th>
<th>Before Discharge</th>
<th>N</th>
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<tbody>
<tr>
<td>Alcohol use</td>
<td>42.5</td>
<td>37.4</td>
<td>25,684</td>
</tr>
<tr>
<td>Drug use</td>
<td>13.3</td>
<td>10.2</td>
<td>25,696</td>
</tr>
<tr>
<td>Arrests</td>
<td>56.3</td>
<td>17.3</td>
<td>25,908</td>
</tr>
<tr>
<td>Homelessness</td>
<td>13.5</td>
<td>5.4</td>
<td>24,846</td>
</tr>
<tr>
<td>Unemployed</td>
<td>66</td>
<td>18.4</td>
<td>24,252</td>
</tr>
<tr>
<td>No self-help</td>
<td>11.1</td>
<td>5.4</td>
<td>23,171</td>
</tr>
</tbody>
</table>

Minnesota Addiction Treatment Outcome Measures

Addiction treatment services in Minnesota help people remain alcohol and drug free; obtain or regain employment; stay out of the criminal justice system; find stable housing; and enter into recovery.

In CY2008, Minnesota reports the following addiction treatment outcomes for public pay patients:

- A 69.4% decrease in alcohol use
- A 63.9% decrease in illicit drug use
- A 47.1% decrease in client homelessness
- A 59.4% decrease in arrests in the past 30 days

ADAD’s Role in Supporting Recovery from Substance Use Problems & Disorders

- ADAD works to ensure that science forms the foundation for Minnesota’s addiction treatment system.
- ADAD administers public funds to pay for treatment services for those who can not otherwise afford it – the Consolidated Chemical Dependency Treatment Fund (CCDTF)
- ADAD serves health professionals and the public by disseminating scientifically sound, clinically relevant information on best practices in the prevention and treatment of addictive disorders.
ADAD’s Role in Supporting Recovery from Substance Use Problems & Disorders

- ADAD administers Substance Abuse Prevention and Treatment (SAPT) Federal Block grant dollars in the form of grants for recovery support, prevention, special populations.
- ADAD encourages integration of addiction treatment with primary health care and mental health care services.
- ADAD partners with multiple organizations to reduce stigma and help advance addiction as a treatable chronic disease with behavioral components.

**NEW in 2010:**

**Screening, Evaluation and Treatment (SET)**
Goal: to provide integrate the identification, evaluation and treatment of substance abuse problems into mainstream primary health care settings.

**Recovery Community Centers**
Goal: to connect people seeking recovery with resources that help support it, such as treatment, housing, transportation, housing, job training, education, health or other pathways to recovery.

**Treatment rate reform**
Goal: to bring uniformity to rates that treatment providers receive from the CCDTF for providing treatment to public patients.