

MARIJUANA

Overview

Marijuana comes from the “Cannabis sativa” or hemp plant. Its main active ingredient, delta-9-tetrahydrocannabinol or THC, binds to cannabinoid receptors in the brain, causing a user’s “high.” The THC content of marijuana has steadily increased over the past 30 years, thereby also increasing its potency.¹ According to the 2013 National Survey on Drug Use and Health (NSDUH), **marijuana is the most used illicit drug** with 19.8 million (7.5%) Americans (12 or older) reporting past month use. The percentage of Americans using marijuana (during the past month) has been consistently increasing over the past six years from 5.8% in 2007 to 7.5% in 2013. In addition to the increasing rates of past month use, the rate of Americans (12 or older) who use marijuana on a daily or almost daily basis has also steadily increased. In 2013, 8.1 million people used marijuana on 20 or more days in the past month and 5.7 million used marijuana on 300 or more days during the past year. As drug use increases, drug dependence and admissions to substance use disorder treatment also increase. **In 2013, 4.2 million Americans were dependent on or abused marijuana (more than pain relievers, cocaine, and heroin combined)** and roughly 316,000 people received treatment for marijuana use – the second most common substance individuals receive treatment for behind alcohol.^{3,2}

Marijuana Use: A Closer Look

Treatment Admissions: In 2012, 17% of individuals admitted to treatment in the U.S. reported marijuana as their primary substance of abuse. The **average age of individuals admitted for marijuana was 25.** Of treatment admissions for individuals aged 12-14 and 15-17, marijuana was the primary substance in 76% of admissions. More than half (56%) of individuals admitted to marijuana treatment first used marijuana by age 14. 52% of people admitted to treatment for marijuana were referred by a criminal justice agency (incl. Driving Under the Influence/DUI).²

NSDUH 2013 Data:

Past Month Use of Illicit Drugs, U.S. Population

12 and Older

Illicit Drugs	Use % (estimate)
Marijuana	7.5% (19,800,000)
Psychotherapeutics*	2.5% (6,500,000)
Cocaine	0.6% (1,500,000)
Hallucinogens	0.5% (1,300,000)
Inhalants	0.2% (500,000)
Heroin	0.1% (300,000)

Psychotherapeutics are prescription medications such as opioid pain relievers, tranquilizers, stimulants, and sedatives.

Past Month Use, Marijuana Users

By Age

Age	Use % (estimate)
12-17	9% (1,762,000)
18-25	33% (6,636,000)
26-34	24% (4,721,000)
35 and older	34% (6,691,000)

By Gender, 12 and Older

Gender	Use % (estimate)
Female	38% (7,510,000)
Male	62% (12,300,000)

By Race/Ethnicity, 12 and Older

Primary Race/Ethnicity	Use % (estimate)
White	66% (13,168,000)
Black	14% (2,727,000)
Hispanic	13% (2,663,000)
Am. Indian/AK Native	0.7% (151,000)
Asian	1.5% (300,000)

Trends in Treatment Admission for Marijuana

A large scale review of the scientific literature reveals that the number of individuals seeking treatment for marijuana use has increased during the past 20 years in the United States, Europe, and Australia. This increase has generally occurred roughly 10 years after an increase in marijuana use among young adults. This increase cannot be explained by increased court diversion – in fact, a similar increase has occurred in the Netherlands where marijuana has been decriminalized for more than 40 years.⁵ Many hypotheses exist for this increase, though the literature remains inconclusive.

Is Marijuana Addictive?

According to results from the 2013 NSDUH, **young people who initiate marijuana use are more likely to become dependent on illicit drugs** – 11.5% of adults aged 18 or older who first used marijuana at 14 or younger were classified as having an illicit drug dependence versus 2.6% of adults who first used marijuana at 18 or older.³ NIDA researchers estimate that **9% of people who use marijuana will become dependent** on it. For individuals who initiate use during adolescence, an estimated 17% will become dependent. The risk is even higher among people who use marijuana daily, with 25-50% becoming dependent.¹ In addition to heavy, recurrent use and the social problems that are associated with cannabis use disorder, as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM V), marijuana dependence is also associated with withdrawal symptoms that include irritability, difficulty sleeping, craving, and aggression.⁶

Marijuana Use in Adolescence (ages 12-17):

Prevalence

Marijuana is the **most commonly used illicit drug by adolescents aged 12-17.** This trend has been consistent over the last decade, with rates varying between a high of 8.2% of adolescents using during the past month in 2002 to a low of 6.7% from 2006-2008. In 2013, the rate was 7.1% or more than 1.7 million adolescents.³ In fact, according to the 2013 Monitoring the Future study, more American high school seniors have tried marijuana than have tried cigarettes (45.5% vs. 38.1%).¹⁰ Brain development continues through adolescence and young adulthood, making adolescents particularly susceptible to the negative effects of marijuana and other drugs.

Public Health Impact

According to the National Institute on Drug Abuse (NIDA), using marijuana impairs individuals’ abilities to form new memories and disrupts the sections of the brain that regulate balance, posture, coordination, and reaction time. In rare cases, a large dose of marijuana may cause acute psychosis, including hallucinations, delusions, and a loss of the sense of personal identity. A recent NIDA-funded review of scientific literature on adolescent marijuana use suggests that earlier marijuana initiation, particularly before 18 years old, is associated with greater health consequences, namely poorer attention, reduced IQ, and deficits in executive function.⁴ A large longitudinal study found that individuals who began persistently using marijuana during adolescence showed an average decline of 8 IQ points. This decline in IQ put marijuana users’ IQ below 70% of their peers.¹¹ Another study, integrating the data from three large longitudinal studies, consistently showed negative impacts from adolescent marijuana use including lower educational achievement, use of other illicit drugs, and an increased risk of suicide. In addition, this study found dose-response characteristics across the outcomes, meaning that as marijuana use increases during adolescence, negative consequences in young adulthood also increase.¹²

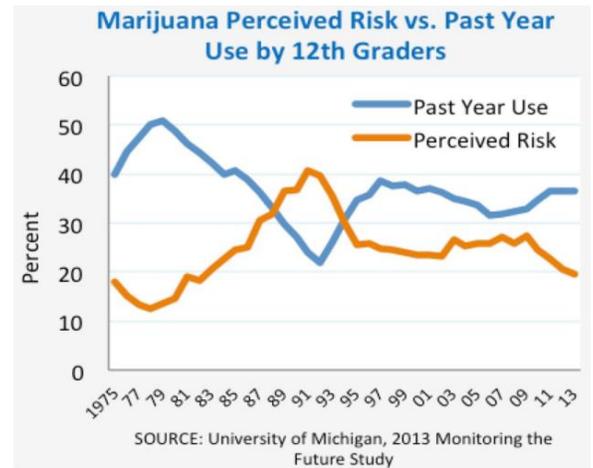
Driving under the influence of marijuana is also a major public health concern. After alcohol, THC is the most commonly found substance in the blood of impaired drivers, fatally injured drivers, and crash victims. Current research indicates that marijuana use can impair a driver’s attentiveness, perceptions of time and speed, and ability to recall information from past experiences. These issues increase significantly when marijuana is used with alcohol.¹³

Perception of Risk and Marijuana Use

Perception of risk is an important predictor of substance use, particularly among youth. The perception of risk among youths aged 12-17 of using marijuana has declined over the past five years. This decline in perception of risk coincides with an increase in use. The chart on the right illustrates that when youths' (in this case 12th graders) perceived risk of using marijuana declines, use of marijuana increases.^{3,10}

The Role of State Substance Abuse Agencies in Substance Use Disorder Prevention, Treatment, and Recovery

State Substance Abuse Agency Directors have the front-line responsibility for managing the nation's publicly funded substance abuse prevention, treatment, and recovery systems in each State. The Substance Abuse Prevention and Treatment (SAPT) Block Grant is a formula grant awarded to every State and Territory. It is the backbone of each State's publicly funded substance abuse system. This flexible funding stream is designed to help States address their own unique needs related to substance abuse. In addition, 20 percent of the SAPT Block Grant is, by law, dedicated to prevention services. **The SAPT Block Grant accounts for roughly 40% of expenditures by State Substance Abuse Agencies and an estimated 64% of State Substance Abuse Agencies' expenditures on prevention.**⁷ According to SAPT Block Grant reports (submitted by all States and Territories), SAPT Block Grant funds enabled more than 1.6 million Americans to receive treatment services during the 2014 report year. In addition, more than 7.4 million Americans received SAPT Block Grant-funded prevention services in individual-based programs and more than 285 million were served in population-based programs during the same period.⁹



Benefits of Prevention and Treatment Programs and Services

Increases in the use of marijuana increases marijuana dependence, and in turn, increases the burden on substance use disorder treatment and recovery resources. In addition, trends in adolescent marijuana use increases the need for evidence-based prevention efforts. Educating parents on how to discuss drug use with young persons is an effective way to discourage use. According to 2013 NSDUH data, youths aged 12 to 17 who thought their parents would "strongly disapprove" of trying marijuana were less likely (4.1%) to have used marijuana during the past month than those who did not (29.3%). School-based programs are also effective in reducing substance abuse, as well as a great financial investment. According to cost benefit analyses conducted by SAMHSA and other researchers, **every \$1 spent on effective school-based prevention programs, saves roughly \$18.** These evidence-based programs can lower students' risk of misusing substances and/or developing a substance use disorder.⁸

Key Federal Programs

State Substance Abuse Agency Directors have a variety of evidence-based tools and strategies at their fingertips. These tools are supported by key federal programs, including the **SAPT Block Grant**. With almost 316,000 Americans receiving substance use disorder treatment services for marijuana alone, the funding that the SAPT Block Grant provides (\$1.7 billion in FY 2014 for States and U.S. Territories) is essential. More importantly, SAPT Block Grant-funded treatment services produce results. During the 2014 report year clients who were discharged from SAPT Block Grant-funded treatment services had the following outcomes: 92.9% reported having a stable living situation; 93.9% had no arrests during the past 30 days; 81.5% were abstinent from alcohol; and 72.1% were abstinent from illicit drugs.⁹

SAMHSA's **Center for Substance Abuse Prevention (CSAP)**, funded at \$175 million in FY 2014, supports States and communities with service capacity expansion grants and science and service areas. The Partnerships for Success Initiative is a NASADAD priority program designed to help States achieve a quantifiable decline in substance use disorder rates using the Strategic Prevention Framework (SPF) approach. States use data to identify problem areas and craft a coordinated, cross-agency plan.

References

1. National Institutes of Health (NIH), National Institute on Drug Abuse (NIDA). *Marijuana*. NIH Publication Number 12-3859. Bethesda, MD: NIDA, 2012.
2. Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality (CBHSQ). *Treatment Episode Data Set (TEDS): 2002-2012. National Admissions to Substance Abuse Treatment Services*. BHSIS Series S-71, HHS Publication No. (SMA) 14-4850. Rockville, MD: SAMHSA, 2014.
3. SAMHSA. *Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings*. NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: SAMHSA, 2014.
4. Lisdahl, K., Gilbert, E., Wright, N., and Shollenbarger, S. *Dare to Delay? The Impacts of Adolescent Alcohol and Marijuana Use Onset on Cognition, Brain Structure, and Function*. *Frontiers in Psychiatry*. Milwaukee, WI: University of Wisconsin-Milwaukee, 2013.
5. Hall, W. *What Has Research Over the Past Two Decades Revealed about the Adverse Health Effects of Recreational Cannabis Use?* *Addiction*. New Zealand, 2014.
6. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (5th ed.)*. Washington, DC, 2013.
7. NASADAD estimate.
8. Miller, T. and Hendrie, D. *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis*, DHHS Pub. No. (SMA) 07-4298. Rockville, MD: Center for Substance Abuse Prevention, SAMHSA, 2008.
9. SAMHSA. Report from WebBGAS using 2014 SAPT Block Grant Reports. Accessed October 2014.
10. Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E. & Miech, R. A. *Monitoring the Future National Survey Results on Drug Use, 1975-2013: Volume I, Secondary School Students*. Ann Arbor: Institute for Social Research, The University of Michigan, 2014.
11. Meier, M.H. et al. *Persistent Cannabis Users Show Neuropsychological Decline from Childhood to Midlife*. *Proceedings of the National Academy of Sciences*, 2013.
12. Silins, E. *Young Adult Sequelae of Adolescent Cannabis Use: An Integrative Study*. *Lancet Psychiatry*, 2014.
13. NIH, NIDA. *Drug Facts: Drugged Driving*. Bethesda, MD: NIDA, 2013.



Contact Information: Robert Morrison, Executive Director, (202) 293-0090 or rmorrison@nasadad.org.
Colleen Haller, Public Policy Associate, (202) 293-0090 or challer@nasadad.org.

NASADAD • 1025 Connecticut Ave NW, Ste. 605 • Washington, DC 20036 • T: (202) 293-0090 • F: (202) 293-1250 • Website: www.nasadad.org