

CENTER ON ADDICTION

POLICY BRIEF ON MARIJUANA LEGALIZATION



Center on Addiction stands with our nation's leading medical societies (e.g., [American Medical Association](#), [American Society of Addiction Medicine](#), [American Psychiatric Association](#) and the [American Academy of Pediatrics](#)) in opposing the legalization of marijuana for recreational use because it will increase access to – and use of – the drug among adolescents, boosting the prevalence of addiction in the next generation.

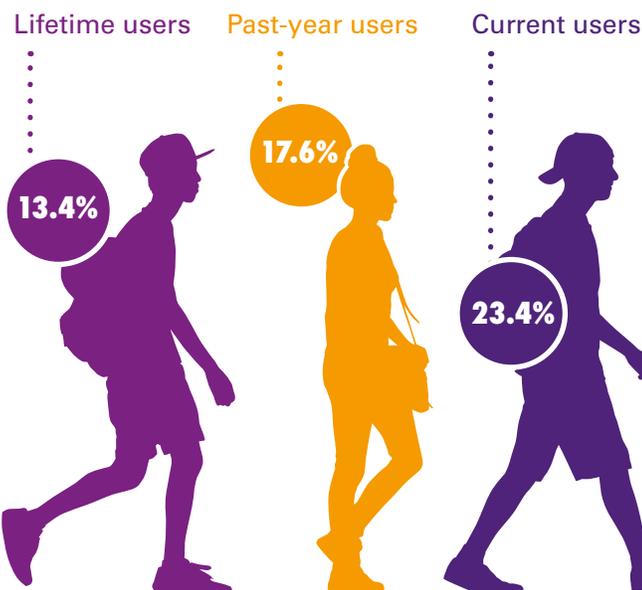
Research shows that legalizing addictive substances increases use among adolescents. We also know that use of addictive substances during adolescence is a major risk factor for developing addiction. This is based in science, not hyperbole. In the midst of a deadly opioid crisis, the stakes have never been higher to protect today's children and future generations.

At Center on Addiction, our priority is protecting young people from developing addiction. Legalizing marijuana will undermine our nation's efforts to achieve this goal. In lieu of legalization, we support reducing or eliminating criminal penalties for personal marijuana use and promoting research on the medical benefits of cannabinoids.

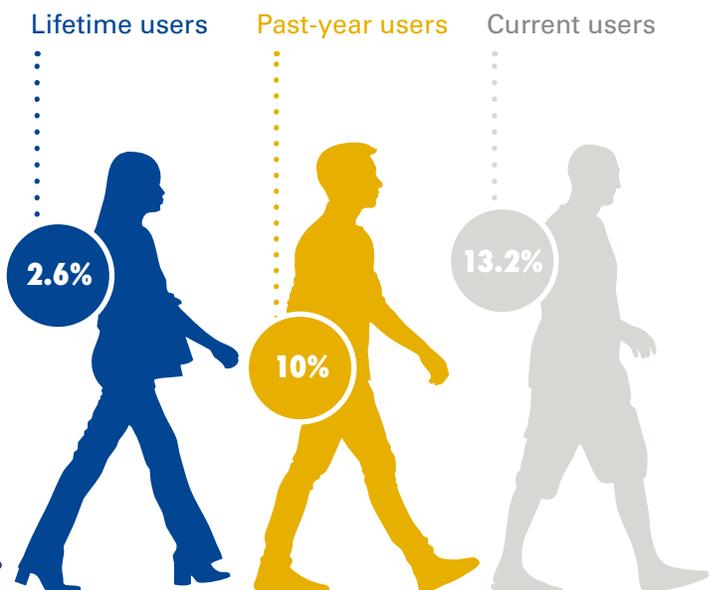
Teens are nearly twice as likely as adults to become addicted to marijuana

Marijuana legalization poses a unique threat to teens because early use and regular use are both associated with greater likelihood of developing a marijuana use disorder, relative to adults who use marijuana. Underage marijuana users (ages 12-20) are nearly twice as likely to have a marijuana use disorder, compared to adults ages 21 and older who use the drug.¹

Percentage of marijuana users aged **12-20 year-old** that met the diagnostic criteria for a marijuana use disorder.



Percentage of marijuana users aged **21 and older** that met the diagnostic criteria for a marijuana use disorder.²



Teens who start marijuana use before age 18 have 4-7 times higher odds of developing a marijuana use disorder than those who start using as young adults.³ Every year that initiation of marijuana use is delayed, the risk goes down. A recent study that followed low-income boys from their teen years to age 28 found that for every year that marijuana use initiation was delayed, the odds of developing drug addiction symptoms were reduced by 31 percent.⁴

Early substance use increases the lifetime risk of addiction

The use of any addictive substance, including marijuana, during adolescence significantly increases the lifetime risk of other substance use and of developing addiction. Studies show that 94 percent of people with drug addiction used an addictive substance before the age of 18.⁵ In addition, research on animals suggests that exposure to marijuana during adolescence may specifically increase the risk of addiction to opioids later in life.⁶

Marijuana can interfere with brain development and exacerbate mental health conditions

When used regularly during adolescence and early adulthood – a period of active brain development – marijuana can alter the structure and function of the brain, impairing learning and memory and exacerbating psychiatric conditions. Although there is conflicting research and direct causation remains unclear, the evidence suggests that teens who use marijuana may be at risk for cognitive impairment.⁷ Early and regular marijuana use during adolescence is associated with lower IQ later in adulthood and with decreased activity and/or connectivity in the areas of the brain related to executive function, learning and memory.⁸ Whether cognitive deficits are reversible is not completely clear.⁹ Starting early and using the drug regularly also increases the risk for psychosis – especially among those who use the drug frequently and are predisposed to mental

health problems.¹⁰ Marijuana use is also associated with hypomania, in addition to social anxiety disorder, schizophrenia and suicidal thoughts.¹¹ In addition to the health risks, adolescent marijuana use is associated with reduced educational attainment and increased likelihood of school dropout.¹²

Unfortunately, regular or heavy use is the norm among young marijuana users, a pattern unlikely to be improved by legalization. National survey data suggest that, on average, adolescents who currently use marijuana say they used it during 14 out of the past 30 days (about 1 in every 2 days of the month).¹³

Legalization of addictive substances increases access and use of that substance among teens

The very act of legalizing marijuana sends a message that the drug is safe and acceptable to use. This shift in cultural norms puts adolescents at risk. Research confirms that legalizing marijuana for adult recreational use has already been associated with a decrease in teens' perceptions of the risks and harms of marijuana.¹⁴ Data from three decades of survey research indicate that decreased perceptions of harm are strongly associated with increased rates of adolescent use.¹⁵ In Colorado – the first state to legalize marijuana, marijuana was the top offense cited in public schools in 2015-2016,¹⁶ and Colorado and Alaska have the highest rates in the country for first-time marijuana use among 12-to-17 year-olds.¹⁷

Legalization has led to the growth of a commercial marijuana industry that is incentivized to promote adolescent marijuana use in order to recruit a new customer base that can be turned into a long-term, heavy and loyal customer base.¹⁸ People who begin using marijuana as teens are more likely to engage in future heavy use, which drives profits. This is exactly what happened with the tobacco and alcohol industries. In fact, the nascent marijuana industry has already begun implementing the tobacco industry's successful strategies, including making edibles that resemble candy and other snacks that are popular with kids.

The alcohol industry garners roughly half of its profits from underage and excessive drinking,¹⁹ and there's good reason to believe that the marijuana industry will operate in a similar manner.

States that legalize marijuana will likely adopt minimum age laws as a way to deter teen use; however, such laws fall short unless they are accompanied by other strategies, including: strong enforcement of age restrictions; high taxes; environmental use bans; prohibited advertising, marketing and placement in entertained media; and sustained public awareness campaigns. Discussions about the tax benefits of legalizing marijuana fail to take into account the substantial investment needed to adequately regulate the drug and prevent adolescent use.

Alternative to legalization

Being against legalization is not the same thing as being in favor of criminalization. Incarcerating people for using marijuana serves neither the individual's nor the public's interest. Having a criminal record for marijuana use is damaging to people's livelihoods and life opportunities, particularly for youth. But legalization, on the other side of the spectrum, is not the answer. It increases the risk of marijuana use among adolescents, which compromises young people's chances of leading full, healthy lives, free of substance use, addiction and their many consequences.

Instead of legalization, **Center on Addiction** supports reducing criminal penalties for marijuana use (imposing a fine rather than jail time) and, after multiple violations, mandating people to treatment. Keeping marijuana illegal but eliminating criminal penalties can be expected to improve health outcomes while eliminating commercial incentives to promote marijuana use.

NOTES

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- 2 Richter, L., Pugh, B. S., & Ball, S. A. (2016). Assessing the risk of marijuana use disorder among adolescents and adults who use marijuana. *American Journal of Drug and Alcohol Abuse*, 43(3), 247-260.
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- 4 Rioux, C., Castellanos-Ryan, N., Parent, S., Vitaro, F., Tremblay, R. E., & Séguin, J. R. (2018). Age of cannabis use onset and adult drug abuse symptoms: A prospective study of common risk factors and indirect effects. *Canadian Journal of Psychiatry*. doi: 10.1177/0706743718760289
- 5 Center on Addiction analysis of raw data from the 2016 National Survey on Drug Use and Health (2018).
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- 9 Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. B. (2014). Adverse health effects of marijuana use. *The New England Journal of Medicine*, 370(23), 2219-2227.
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