

Legalization of marijuana and youths' attitudes toward its use

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The legal status of marijuana has changed a great deal during the last 4 decades. In the United States, several states have legalized the use of marijuana to treat several medical conditions. Some states have decriminalized marijuana possession, and several have legalized marijuana for recreational use by adults. These changes have contributed to a growing misperception among young people that marijuana is harmless or not as risky as other illicit substances.

In this article, I explore the effect the legalization of marijuana has had on young peoples' attitudes toward its use.

Marijuana use among adolescents

Among adolescents, marijuana is the most commonly used illicit substance, after alcohol.¹ According to data from the 2019 Monitoring the Future Survey, while past month, past year, and lifetime marijuana use among 8th and 10th graders remained steady from 2018 to 2019, daily marijuana use among these adolescents increased.² This survey also reported increases in adolescent marijuana vaping from 2018 to 2019.² Further, the percentage of adolescents who think that the regular use of marijuana is risky has been trending down since the mid-2000s.²

Youth substance use rates depend on numerous factors, including legal status, availability, ease of access to the substance, and perception of harm.³ Although the legalization of marijuana for recreational use has been for adults only, based on rates

of tobacco and alcohol use in adolescents (both of which are legal for adults), the legalization of marijuana is likely to have implications for adolescents.⁴

Adverse effects among adolescents

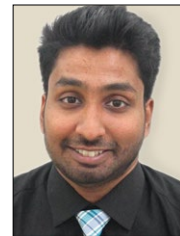
During adolescence, the brain is still developing, and marijuana use during this time could cause decreased cognitive functioning, especially executive functions.⁴ Marijuana use by adolescents also has been associated with^{4,5}:

- an increased risk of mental health disorders, including depression, anxiety, and psychosis, particularly among adolescents at higher risk, such as those with a family history of psychiatric illness
- a decline in school performance
- an increased school dropout rate
- an increased risk of marijuana dependence
- an elevated rate of engaging in risky behaviors.

Factors by which the legalization of marijuana might increase its use among adolescents include⁴:

- perceived decreased risk of marijuana use

continued



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Disclosure

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Some studies have found adolescent marijuana use increased in states that legalized it, but others have not

- increased availability
- lower cost
- decreased fear of legal consequences of marijuana use.

Increased parental use is an indirect way in which legalization of marijuana for adult recreational use might increase use in youth.

What the evidence says

Colorado legalized marijuana for medical use in 2000, and for adult recreational use in 2014. A 2012 study of adolescents receiving substance abuse treatment in Colorado found diversion of medical marijuana to these adolescents was common.⁶ This study also reported that compared with those who did not use medical marijuana, adolescents who used medical marijuana had an earlier age of regular marijuana use, more marijuana use disorder symptoms, and more symptoms of conduct disorder.⁶ However, data from the US Substance Abuse and Mental Health Services Administration⁷ and from the Colorado Department of Public Health & Environment⁸ suggest that marijuana use among adolescents has not increased since legalization in Colorado.

In 2012, voters in Washington state legalized marijuana for recreational use. In 2013, Moreno et al⁹ interviewed college students in Washington, where marijuana had just been legalized, and Wisconsin, where it had not. In both states, most participants indicated that legalization would not change their attitude towards use. A small proportion of students felt that legalization would signify an endorsement of marijuana, and they were likely to perceive it as safe to use.

In an analysis of data on more than 250,000 students in 8th, 10th, and 12th grade, Cerdá et al¹⁰ found that after legalization in Washington, the perceived harmfulness of marijuana decreased and marijuana use increased among 8th and 10th graders in Washington; however, there were no significant differences noted among adolescents in Colorado.

In 2010, voters in California passed legislation to decriminalize marijuana. In an analysis of data from 8th, 10th, and 12th graders in California, Miech et al¹¹ found a positive correlation between decriminalization and increases in youth future marijuana use. They also found that compared with their peers in other states, 12th graders in California were more likely to have used marijuana in the last 30 days, less likely to perceive marijuana use as a health risk, and less likely to disapprove of its use.¹¹

Although some studies have suggested that legalization of marijuana might increase use among adolescents, limitations of these studies include that they relied on self-reported use by adolescents, and they did not evaluate adolescent populations outside of school settings.

Addressing adolescents' marijuana use

Strategies for preventing or reducing marijuana use among adolescents might include imposing restrictions and passing stricter laws on the sale of marijuana to individuals age <21, regulating marijuana advertising, increasing adolescent substance use prevention program initiatives, and educating youth about the negative effects of marijuana. Further research is needed to clearly establish if the legalization of marijuana for adult recreational use will increase its use among adolescents.

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**Regulating
marijuana advertising
might help reduce
marijuana use among
adolescents**