

Has Marijuana Legalization Increased Marijuana Use Among US Youth?

Wayne Hall, PhD; Megan Weier, BPsySci

Since 2012, citizens in Alaska, Colorado, Oregon, and Washington have voted to legalize the recreational use of marijuana by adults. Advocates of legalization have argued that prohibition wastes scarce law enforcement resources by selectively arresting minority users of a drug that has fewer adverse health effects than alcohol.^{1,2} It would be better, they argue, to legalize, regulate, and tax marijuana, like alcohol.³



Editorial



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Opponents of legalization argue that it will increase marijuana use among youth because it will make marijuana more available at a cheaper price and reduce the perceived risks of its use.⁴

Cerdá et al⁵ have assessed these concerns by examining the effects of marijuana legalization in Colorado and Washington on attitudes toward marijuana and reported marijuana use among young people. They used surveys from Monitoring the Future between 2010 and 2015 to examine changes in the perceived risks of occasional marijuana use and self-reported marijuana use in the last 30 days among students in eighth, 10th, and 12th grades in Colorado and Washington before and after legalization. They compared these changes with changes among students in states in the contiguous United States that had not legalized marijuana (excluding Oregon, which legalized in 2014).

The perceived risks of using marijuana declined in all states, but there was a larger decline in perceived risks and a larger increase in marijuana use in the past 30 days among eighth and 10th graders from Washington than among students from other states. They did not find any such differences between students in Colorado and students in other US states that had not legalized, nor did they find any of these changes in 12th graders in Colorado or Washington.

If the changes observed in Washington are attributable to legalization, why were there no changes found in Colorado? The authors suggest that this may have been because Colorado's medical marijuana laws were much more liberal before legalization than those in Washington. After 2009, Colorado permitted medical marijuana to be supplied through for-profit dispensaries and allowed advertising of medical marijuana products. This hypothesis is supported by other evidence that the perceived risks of marijuana use decreased and marijuana use increased among young people in Colorado after these changes in 2009.⁶

The Health Educational Challenge After Marijuana Legalization

Marijuana legalization presents major challenges for prevention of use by youth. The risks of use are contested by propo-

nents and opponents of legalization,^{2,4} making it difficult to provide broadly accepted messages about the risks of marijuana use. Health advice also has to compete with marketing by a legal marijuana industry that, like the alcohol industry, wants to grow its market by increasing regular use and downplaying its health risks.^{7,8} The industry will protest that their promotions are intended only for adults, but adolescents cannot be insulated from their messages.

The challenge for health educators will be in acknowledging that the acute adverse effects of marijuana use are modest by comparison with those of alcohol or heroin, while persuading young people that they can experience adverse effects, especially if they begin use in their teens and use daily throughout young adult life.^{9,10}

Marijuana users need to be informed about the approximate doubling of the risks of a collision if they drive while intoxicated,¹¹ especially if they use both alcohol and marijuana.⁹ Regular users need to be aware that they can develop dependence.⁹ The risk for dependence is about 1 in 10 for those who ever use marijuana and 1 in 6 for those who first use in adolescence.¹² Marijuana users also need to know that dependent users have more anxiety, depression, and psychotic disorders and are more likely to leave school early, to be unemployed as adults, and experience downward social mobility in mid-adulthood.^{9,13,14} Debate will no doubt continue over whether regular use is a contributory cause to these outcomes or if these outcomes occur because regular users have a higher risk of these poorer outcomes before they start to use.⁹

The Challenges of Future Policy Evaluation

Future evaluations of the effects of marijuana legalization on use and harms will require studies of larger, more representative state samples over longer periods.⁸ These evaluations will be affected by how many US states legalize marijuana and how soon they do so. If a legalization bandwagon develops (like the bandwagon that led to the repeal of National Alcohol Prohibition in 1932¹⁵), then future evaluations of legalization will be limited to comparing trends in marijuana use in the United States and other developed countries that have not legalized.

Policy evaluations would be difficult even if equal numbers of US states, with similar social and ethnic composition, decided to legalize marijuana or not. Comparisons of trends in perceived risks between states would be complicated by the probable spillover effects of policy debates about marijuana. The perceived risks of using marijuana have already declined nationally, probably because of a number of reasons: increased marijuana use because users perceive use as less risky

than nonusers, increased media coverage of the medical uses of marijuana (now legal in 23 states), and public debates about ballot initiatives for legalization in which advocates have argued that marijuana use has far fewer adverse health effects than alcohol.² Assessing the effects of marijuana legalization

on use will also be complicated because price differential between states where marijuana is legalized vs not legalized will probably encourage marijuana smuggling and reduce average marijuana prices in states without recreational marijuana use laws.

ARTICLE INFORMATION

Author Affiliations: Centre for Youth Substance Abuse Research, Royal Brisbane and Women's Hospital, University of Queensland, Herston, Queensland, Australia (Hall, Weier); Addictions Department, National Addiction Centre, King's College London, London, England (Hall).

Corresponding Author: Wayne Hall, PhD, Centre for Youth Substance Abuse Research, The University of Queensland, Herston, Queensland 4029, Australia (w.hall@uq.edu.au).

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