COMMON CLAIMS ON CANNABIS REGULATION

CLAIM	STRENGTH OF SUPPORTING EVIDENCE	BOTTOM LINE
Legalization / regulation increases the availability of cannabis.	Weak	Evidence suggests that the supply of illegal cannabis has increased under a prohibition model, and that availability has remained high among youth. Evidence does not suggest that cannabis availability among youth has increased under regulatory systems.
"[I]f marijuana was legal- ized, the increase in users would be both large and rapid"	Weak	Evidence suggests that the policy environment (specifically legal status and enforcement policy) has at most a marginal impact on the prevalence of drug use, thereby suggesting that regulating cannabis markets will not inevitably cause higher levels of cannabis use.
Regulation will not reduce drug crime.	Weak	Given that the prohibition of cannabis has not been shown to reduce illegal supply, it is likely that cannabis regulation is more effective at minimizing criminal markets for cannabis, despite the fact that criminal markets will continue to represent a proportion of the total market.
"We are going to have a lot more people stoned on the highway and there will be consequences."	Weak	While experimental studies suggest that cannabis intoxication reduces motor skills and likely increases the risk of motor vehicle collisions, there is not sufficient data to suggest that cannabis regulation would increase impaired driving, and thereby traffic fatalities.
Regulation promotes drug tourism.	Weak	While evidence suggests that, depending on the use of regulatory controls and geographic setting, regulation may in some cases lead to an increase in drug tourism, the data do not sug- gest that this is an inevitable consequence of regulation.
Regulation leads to a "Big Marijuana" scenario.	Weak	Available evidence regarding "Big Marijuana" is currently lacking, though regulatory controls can be introduced within regulatory systems to reduce the potential of profit maximization by cannabis retailers.

CLAIM RESPONSE

Legalization / regulation increases the availabilitv of cannabis.

- Evidence suggests that prohibition has been generally unsuccessful in reducing the availability of cannabis. In the United States, research indicates that since 1990, the price of cannabis has decreased while potency has increased, despite increasing investments in enforcement-based supply reduction efforts (Werb et al., 2013). Given that we can't measure the underground market directly, these indicators act as proxy markers, suggesting that the supply - and by extension the availability - of cannabis has likely increased.
- The perceived availability of cannabis among young people has remained high, notwithstanding increases in drug control budgets. For the past 39 years, between 81% and 90% of twelfth graders in the United States have reported that they could obtain cannabis "fairly easily" or "very easily" (Monitoring the Future, 2014). Similarly, in the European Union, research from 2014 indicates that 58% of young people aged 15 to 24 believe it would be either very easy or fairly easy to obtain cannabis within 24 hours (European Commission, 2014).
- **BOTTOM LINE:** Evidence suggests that the supply of illegal cannabis has increased under a prohibition model, and that availability has remained high among youth. Evidence does not suggest that cannabis availability among youth has increased under regulatory systems.
- By allowing governments to set legal age restrictions, the strict legal regulation of cannabis markets could actually be more effective than prohibition at restricting the availability of cannabis to young people (Rolles, 2009), as has occurred with tobacco regulation (Johnston, O'Malley, Bachman, & Schulenberg, 2012).

CLAIM RESPONSE

"[I]f marijuana was legalized, the increase in users would be both large and rapid..."

- (DuPont, 2010)

- The assertion has been made that the higher prevalence of alcohol and tobacco use under a regulated market implies that cannabis use would also increase if regulated. However, World Health Organization data suggests that countries with more punitive drug policies do not exhibit lower levels of drug use compared to countries with more liberal policies (i.e., regulation) (Degenhardt et al., 2008). Hence, causal claims between the prevalence of drug use and the policy environment are misguided. Simply put, the evidence suggests that prohibition has at most a marginal impact on the use of illicit drugs.
- Comparing the prevalence rates of cannabis use before and after legal changes in several European countries over the past decade or so indicates that no simple association was observed between legal changes and changes in cannabis use prevalence. Countries where penalties were increased did not experience lower levels of use, and higher rates of use did not transpire in countries where penalties were decreased (EMCDDA, 2015).
- At the same time, a large 15-year research study found that the presence of medical marijuana systems has not led to increases in recreational adolescent cannabis use in the United States (Hasin et al., 2015). With respect to new recreational cannabis markets (such as in Colorado, Washington State, and Uruguay), it is likely too soon to adequately evaluate the long-term impact of policy changes on cannabis use trends.
- Given that legal regulation necessarily opens up new sources of drug availability, the way these sources are managed is essential to constraining any sizeable changes in prevalence of use. Nevertheless, strict legal regulation can allow for quality control (to control potency or use of adulterants), legal age restrictions (to keep cannabis out of the hands of youth), greater contact between health care systems and consumers (to better address addiction), and collection of tax revenues to reinvest into social goods, such as education, prevention, and treatment. These are likely more relevant to community health and safety concerns than prevalence of cannabis use given that over 90% of use is unproblematic (Anthony, Warner, & Kessler, 1994).

BOTTOM LINE: Evidence suggests that the policy environment (specifically legal status and enforcement policy) has at most a marginal impact on the prevalence of drug use, thereby suggesting that regulating cannabis markets will not inevitably cause higher levels of cannabis use.

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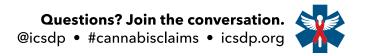
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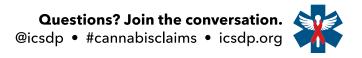


CLAIM RESPONSE

Regulation will not reduce drug crime.

- A commonly heard argument is that the regulation of cannabis markets will not reduce drug crime. However, there is a lack of scientific research on how much drug crime supposedly thrives under regulated markets, and it is still too early to adequately assess this effect in Colorado, Washington State, and Uruguay.
- It is worth recalling the high levels of drug crime and violence under prohibition. Plenty of scientific evidence has demonstrated the failure of prohibition in reducing the size of underground drug markets and trafficking or the violence associated with illegal drug markets (Werb et al., 2013; Werb et al., 2011). Given the inability of prohibition to reduce drug crime and violence, regulation remains a viable alternative.
- Regulated cannabis markets directly reduce some drug crime by removing the illegal nature of some forms of cannabis production, distribution, and consumption. Although illegal drug crime is still likely to continue under a regulated market (i.e., underage purchasing, continued supply from a criminal market, etc.), if regulatory laws are appropriately constructed, cannabis regulation will transfer the vast majority of demand for cannabis from the criminal market to the legal market. Cannabis regulation in Colorado, Washington State, and Uruguay has diverted a substantial proportion (and likely the vast majority) of revenue from cannabis sales from the criminal market to licit sellers, thereby decreasing the total share of the criminal market. Even a modest contraction in criminal opportunities and cartel profits can be viewed as a positive.

BOTTOM LINE: Given that the prohibition of cannabis has not been shown to reduce illegal supply, it is likely that cannabis regulation is more effective at minimizing criminal markets for cannabis, despite the fact that criminal markets will continue to represent a proportion of the total market.



CLAIM RESPONSE

"We are going to have a lot more people stoned on the highway and there will be consequences."

- Rep. John Mica (R-Fla.) (Balko, 2014)

BOTTOM LINE: While experimental studies suggest that cannabis intoxication reduces motor skills and likely increases the risk of motor vehicle collisions, there is not sufficient data to suggest that cannabis regulation would increase impaired driving, and thereby traffic fatalities.

- While evidence shows that the risk of motor vehicle collisions increases for drivers during acute intoxication from cannabis use (Asbridge, Hayden, & Cartwright, 2012; M. C. Li et al., 2012), evidence does not suggest that cannabis regulation leads to increases in the number of impaired drivers on the road. In the case of Colorado, Washington State, and Uruguay, it is too early to determine what long-term impacts might be.
- However, raw data from the Colorado Department of Transportation found that total traffic fatalities were down in the state for 2014 compared to 2013 and the average since 2002 (Balko, 2014). Of course, such counts may not tell us about the specific role of cannabis use in car crashes. However, they do provide reason to question any general claims that cannabis regulation will necessarily lead to less safety on the road at the population-level.
- This claim seems to be rooted in the assumption that impaired driving will increase because cannabis use will increase under a regulatory scheme. It is therefore worth emphasizing that scientific evidence has not found an association between levels of drug use and national drug policies (Degenhardt et al., 2008).
- It is important to note that responsible regulatory schemes would not legalize driving under the influence of cannabis. It remains an offence in Colorado, and indeed the law has arguably been tightened - with new THC blood limits introduced, increased enforcement efforts, and a public education drive funded in part by cannabis tax revenue (Colorado Department of Transportation, 2015). Importantly, compared to prohibition, cannabis regulation allows for detailed public education and awareness campaigns to prevent risky behaviours, such as impaired driving, as has occurred with drunk driving (Hingson & Winter, 2003).
- Interestingly, experts agree that the risk of motor vehicle collisions is much lower for cannabis use compared to the risk associated with alcohol use. The impact of alcohol intoxication on driving therefore remains a far greater public health concern (Li, Brady, & Chen, 2013).

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CLAIM RESPONSE

Regulation promotes drug tourism.

- There is some evidence to suggest that the regulation of cannabis markets attracts tourists. Although not systematically collected, data from the Netherlands has indicated that 25% of tourists who visit Amsterdam visit a coffee shop, and 10% say that this was their reason for visiting the city (Kilmer, 2010). Early evidence from Colorado indicates that 44% percent of revenue from cannabis sales in metropolitan areas, and 90% of sales in rural communities, occurred from buyers residing out of state (Light et al., 2014).
- The potential for cannabis tourism is related to the size and distance of neighboring populations where recreational cannabis use has not been regulated (Caulkins et al., 2015), meaning that regulation in certain jurisdictions is likely to see more drug tourists compared with other settings. This also means that cannabis tourism diminishes as an issue of concern the more jurisdictions legally regulate the cannabis market.
- Importantly, drug tourism is by no means an inevitable consequence of a regulated recreational cannabis market (i.e., evidence does not suggest regulation in and of itself promotes drug tourism). By allowing governments to control the conditions under which cannabis is sold, regulatory models that do not permit drug tourism can be employed. Restricting sales of cannabis to home country residents is one example of a possible regulatory control to reduce drug tourism. Uruguay is an example of this, as the law permits only residents to grow and purchase cannabis (Gutierrez & Pardo, 2015).
- Given the significant economic benefits of all types of tourism, drug tourism is not necessarily a negative side effect of regulation (Caulkins et al., 2015). However, drug tourism may also have drawbacks, such as in the form of public disorder. Overall, there is little evidence suggesting that drug tourism has contributed to widespread negative health or social outcomes.

BOTTOM LINE: While evidence suggests that, depending on the use of regulatory controls and geographic setting, regulation may in some cases lead to an increase in drug tourism, the data do not suggest that this is an inevitable consequence of regulation.

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CLAIM RESPONSE

Regulation leads to a "Big Marijuana" scenario.

- The emergence of regulated recreational cannabis markets has been accompanied with claims that these policy changes will lead to large, for-profit cannabis industries with little oversight and a lack of concern about public health and safety, sometimes referred to as a "Big Marijuana" scenario. In addition to being unsupported by scientific evidence and based on speculation, this claim implies a weaker level of government control than is possible under cannabis regulation.
- Concerns that regulation will lead to a massive commercialized industry are rooted in the assumption that cannabis will follow a similar trajectory as tobacco (T. Hughes, 2015). In previous decades in North America, the tobacco industry engaged in heavy advertising (especially to youth) and industry deception about the health risks associated with use. As a result, tobacco use increased and became a major source of preventable health conditions and mortality (Richter & Levy, 2014). Assuming that the cannabis industry will follow in the footsteps of tobacco is, however, mere speculation and is not supported by scientific evidence. It is equally, if not more, likely that given the previous experience with tobacco, governments will take greater steps towards ensuring that regulations foster a responsible cannabis industry.
- A "Big Marijuana" scenario is in no way an inevitable consequence of a regulated recreational cannabis market. By allowing governments to control the conditions under which cannabis is sold, regulatory models that avoid such an outcome can be employed. This could entail limits on the size of individual market players, or the use of a state monopoly. Restrictions on advertising, requirements for product labelling on health harms, and investments in public education are regulatory controls that do not foster a large commercialized industry and can be adopted.

BOTTOM LINE: Available evidence regarding "Big Marijuana" is currently lacking, though regulatory controls can be introduced within regulatory systems to reduce the potential of profit maximization by cannabis retailers.

• It is still too early to determine whether recently regulated cannabis markets in Colorado, Washington State, and Uruguay will experience a "Big Marijuana" scenario. However, these jurisdictions have employed stricter regulatory controls than those used for tobacco in previous decades, including restrictions on retail quantities and advertising and promotion (Gutierrez & Pardo, 2015; Pardo, 2014). Uruguay, for example, has prohibited cannabis advertising (Gutierrez & Pardo, 2015; Pardo, 2014). The use of strict regulatory controls like these diminishes the likelihood of a "Big Marijuana" scenario.

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