

# Effective Arguments for Regulating and Taxing Marijuana

# Introduction

The key to being a successful advocate of ending cannabis prohibition is effective communication. Specifically, advocates must be able to: 1) convey the most important arguments in support of legalizing, regulating, and taxing cannabis, and 2) respond to arguments made in opposition to legalization. Whether you are engaging in personal discussions, participating in public debates, conducting media interviews, or corresponding with government officials, it is critical that you are prepared.

This document will provide you with the most persuasive talking points and strongest rebuttals to employ when communicating about the benefits of replacing cannabis prohibition with a system of regulating and taxing cannabis for adults. We recommend you keep it handy when conducting interviews or engaging in public debates. You are welcome to convey the information verbatim or simply use it as a general guide when carrying out advocacy activities.

NOTE: New statistics and studies are constantly emerging. If you would like to confirm whether a given piece of information is current, or if you would like to suggest additions or revisions to this document, please contact the Marijuana Policy Project communications department at **media@mpp.org**.

Some information was adapted from *Marijuana Is Safer: So why are we driving people to drink?* (Chelsea Green, July 2013) by Steve Fox, Paul Armentano, and Mason Tvert.

# Cannabis and Alcohol (Not Cannabis vs. Alcohol)

You will notice this document includes many comparisons drawn between cannabis and alcohol, most of which pertain to the relative safety of the former compared to the latter. This information should not be used to express the notion that alcohol should be illegal or that laws governing it should be more restrictive. Alcohol prohibition was a failed policy that produced many of the same problems that are associated with cannabis prohibition.

Rather, the information comparing cannabis and alcohol should be used to highlight the intellectual dishonesty and hypocrisy of laws that allow adults to use alcohol and punish them for using a less harmful substance. It can also be used to highlight the inherent harm associated with such disparate, co-existing policies. Just as it would be bad public policy to prohibit people from choosing to consume chicken instead of beef — or beer instead of liquor — it is bad public policy to prohibit adults from consuming cannabis instead of alcohol, if that is what they would prefer.

# **Proactive Arguments**

These are the key points we want to make when given the opportunity to make our case.

- Cannabis prohibition has been just as ineffective, inefficient, and problematic as alcohol prohibition. Polls show a strong and growing majority of Americans agree it is time to end cannabis prohibition. Nationwide, an October 2019 Gallup poll found that 66% support making cannabis use legal for adults, up from 48% in 2008 and 36% in 2005.[1] An October 2019 Pew Research Center poll found two-thirds (67%) of Americans support legalization up from 53% in 2015 and 32% in 2006.[2]
- Cannabis is objectively less harmful than alcohol to the consumer and to society. It is less toxic, less harmful to the body, less addictive, and less likely to contribute to violent or reckless behavior. Adults should not be punished for making the safer choice to use cannabis instead of alcohol, if that is what they prefer.
- Regulating cannabis like alcohol will replace the uncontrolled illicit market with a tightly regulated system. By legalizing and regulating cannabis, authorities actually know who is selling it, where it is being sold, when, and to whom. In jurisdictions where cannabis is legal, it is produced and sold by legitimate, taxpaying businesses instead of drug cartels and criminals. These businesses will be required to test their products and adhere to strict labeling and packaging requirements that ensure cannabis is identifiable and consumers know what they are getting.
- Government resources should not be wasted arresting and prosecuting cannabis consumers. Hundreds of thousands of Americans are arrested each year for cannabis-related offenses, the vast majority of which are for simple possession. Government resources could be better spent on things like testing untested rape kits or investing in human needs, such as mental health counseling, substance abuse treatment, and activities for at-risk teens.
- Enforcement of cannabis prohibition laws disproportionately impacts communities of color. Despite using cannabis at roughly the same rates as whites, Blacks in the U.S. are nearly four times more likely to be arrested for cannabis possession. In some states, the disparity is even greater.[3]

# **Reactive Arguments**

These are responses to arguments we frequently hear from our opponents.

# Too Dangerous/Unhealthy for Consumers

• Every objective study on cannabis has concluded that it is less harmful than alcohol to the consumer and to society. Following an "exhaustive and comprehensive" two-year study of cannabis performed by the Canadian government, the chair of the Special Senate Committee on Illegal Drugs reported, "Scientific evidence overwhelmingly indicates that cannabis is substantially less harmful than alcohol." [4] Most Americans recognize that alcohol

prohibition was a failure and agree adults should have the right to consume alcohol responsibly.[5] It is illogical to punish adults for consuming a less harmful substance, and it is irrational to steer them toward drinking if they would prefer to make the safer choice to use cannabis instead.

- The health effects of alcohol consumption are a primary factor in countless deaths. The health effects of cannabis consumption are not a primary factor in any deaths. According to the Centers for Disease Control and Prevention (CDC), there were more than 35,000 alcohol-induced deaths in the U.S. in 2017 (i.e. deaths caused directly by long-term use and accidental overdose; this does not include deaths caused by unintentional injuries, homicides, and other causes indirectly related to alcohol use). The CDC did not report any cannabis-induced deaths.[6] A study published in *Scientific Reports* in January 2015 found that the mortality risk associated with cannabis was approximately 114 times less than that of alcohol.[7] In January 2017, the National Academies of Sciences released an exhaustive review of cannabis-related research that found no link between cannabis use and mortality.[8]
- Many people die from alcohol overdoses. There has never been a confirmed cannabis overdose death. The National Academies of Sciences, Engineering, and Medicine concluded in 2017 that no link has been established between cannabis and fatal overdoses.[9] Meanwhile, the CDC reports an average of more than 2,200 alcohol poisoning deaths per year.[10] The official publication of the Scientific Research Society reported that alcohol is one of the most toxic drugs and that death can result from consuming just 10 times the effective dose (the amount a person would use to experience the desired effect). Cannabis, on the other hand, is one of the least toxic drugs, requiring thousands of times the effective dose to lead to death.[11] In 1988, after hearing two years of testimony, the chief administrative law judge for the U.S. Drug Enforcement Administration (DEA) determined "it is physically impossible to eat enough cannabis to induce death" and concluded, "Marijuana, in its natural form, is one of the safest therapeutically active substances known to man."[12]
- There are far more health-related problems associated with alcohol use than with cannabis use, and the health-related costs associated with alcohol far exceed those associated with cannabis. In 2005, a University of Oxford meta-analysis on cannabis concluded that even long-term cannabis use does not cause "any lasting physical or mental harm. ... Overall, by comparison with other drugs used mainly for 'recreational' purposes, cannabis could be rated to be a relatively safe drug."[13] In the mid-1990s, the World Health Organization commissioned a study on the health and societal consequences of cannabis compared to alcohol and other drugs, which concluded the overall risks associated with cannabis are "small to moderate in size" and "unlikely to produce public health problems comparable in scale to those currently produced by alcohol and tobacco."[14] Health-related costs for alcohol consumers are eight times greater than those for cannabis consumers, according to an assessment performed by researchers at the Canadian Centre on Substance Abuse and the Centre for Addictions Research of British Columbia.[15] More specifically, the annual cost of alcohol consumption is \$165 per user, compared to just \$20 per user for cannabis.

# Cancer and the Impact of Smoking or Vaporizing Cannabis on the Lungs

• Extensive research has failed to find a link between cannabis and cancer. In January 2017, the National Academies of Sciences released a review of more than 10,000 scientific abstracts that concluded there is no link between smoking cannabis and the development of lung, head, or neck cancers.[16] It also did not find a link between cannabis use and asthma or other respiratory diseases, and the respiratory problems it did link to smoking cannabis, such as bronchitis, appeared to improve after consumers stopped using it. Similarly, in 1999, the National Academies' Institute of Medicine reported, "There is no conclusive evidence that marijuana causes cancer in humans, including cancers usually related to tobacco use."[17]

According to research published in the journal *Cancer, Causes, and Control*, cannabis inhalation — unlike tobacco smoking — has not been positively associated with increased incidences of cancers of the lung, mouth, pharynx, larynx, esophagus, breast, colon, skin, or prostate.[18] It was also reaffirmed in 2006 by the largest case-controlled study ever conducted to investigate the respiratory effects of cannabis smoking and cigarette smoking. The study, led by Dr. Donald Tashkin at the University of California at Los Angeles, found "no association at all" between cannabis smoking and an increased risk of developing lung cancer, even among subjects who reported smoking more than 22,000 joints over their lifetimes.[19], [20]

Surprisingly, the UCLA researchers found that people who smoked cannabis actually had *lower* incidences of cancer compared to non-users, leading them to the conclusion that cannabis might have a protective effect against lung cancer. Other studies have shown that cannabis can kill cancer cells and inhibit tumor growth.[21], [22]

• The effects of smoking cannabis pale in comparison to those associated with smoking tobacco. Opponents of cannabis policy reform often talk about the presence of carcinogens in cannabis smoke, oftentimes arguing that there are more cancer-causing chemicals in cannabis than in tobacco. Yet, there has never been a single documented case of a cannabis-only smoker developing lung cancer as a result of his or her cannabis use. Meanwhile, tobacco is responsible for 30% of all cancer deaths in the U.S. and 87% of lung cancer deaths.[23]

According to research published in 2013 in the journal *Annals of the American Thoracic Society*, "[H]abitual use of marijuana alone does not appear to lead to significant abnormalities in lung function." It concluded, "In summary, the accumulated weight of evidence implies far lower risks for pulmonary complications of even regular heavy use of marijuana compared with the grave pulmonary consequences of tobacco."[24]

Inhaling any kind of smoke is unhealthy, but the effects of smoking cannabis are relatively mild and short-term in nature. Typically, they take the form of coughing, wheezing, and bronchitis that dissipate after the cessation of use. A 2012 study published in the *Journal of the American Medical Association* found that moderate lifetime cannabis smoking — defined as at least one joint per day for seven years or one joint per week for 49 years — is not associated with adverse effects on pulmonary function.[25]

• Exposure to secondhand cannabis smoke — unlike tobacco smoke — has little to no effect. There is no evidence that exposure to secondhand cannabis smoke has any significant long-term health implications, whereas studies have shown secondhand tobacco smoke can cause health issues.[26] In 1986, the National Institute on Drug Abuse (NIDA) conducted a study in which they placed people in an unventilated 8x7-foot room and burned a series of cannabis

cigarettes. After being exposed to the smoke of four joints for one continuous hour for six consecutive days, most participants had no trace of cannabis in their systems. Those who did only had THC metabolites detectable in their urine (meaning they were never actually "high"). It took researchers burning 16 joints for one continuous hour each day for six consecutive days to produce the effect of consuming one joint. Obviously, it is pretty rare that anyone would ever find themselves in a small room where 16 joints are smoked continuously for one hour per day for six consecutive days.

- Only legalization allows for the regulation of vaporization devices and cartridges, enabling regulators to keep dangerous additives and pesticides out of cannabis products. Most or all of the cannabis vaporization-related lung illnesses and deaths were tied to the illicit market. A California laboratory tested illegal and regulated cannabis vaporization cartridges and found that 13 out of 15 of the illegal products included vitamin E acetate, the compound the CDC identified as the likely cause of the illnesses.[27] None of the legal products it tested had these additives, nor did they have the illicit pesticides or heavy metals that were present in most of the illicit cartridges.
- There are many ways to consume cannabis other than smoking or vaporizing, including edible products, tinctures, capsules, and topicals. Creating a legal, regulated market for a variety of products makes it easier for consumers to choose non-smoked options.

#### **Addiction and Treatment**

• **Cannabis is significantly less addictive than alcohol and tobacco.** According to a 1998 report by Drs. Jack E. Henningfield of the National Institute on Drug Abuse (NIDA) and Neal L. Benowitz of the University of California at San Francisco, cannabis's addiction potential is no greater than that of caffeine.[28] A comprehensive federal study conducted by the National Academy of Sciences' Institute of Medicine arrived at a similar conclusion: "Millions of Americans have tried marijuana, but most are not regular users [and] few marijuana users become dependent on it ... [A]lthough [some] marijuana users develop dependence, they appear to be less likely to do so than users of other drugs (including alcohol and nicotine), and marijuana dependence appears to be less severe than dependence on other drugs." According to the IOM report, only 9% of cannabis users ever meet the clinical criteria for a diagnosis of cannabis "dependence" based on the Diagnostic Statistical Manual of Mental Disorders (3rd edition, revised), compared to 15% of alcohol users and 32% of tobacco users.[29]

Some experts believe significantly fewer than 9% of cannabis users are actually dependent because the DSM is clearly biased against cannabis use, whereas it is accepting of alcohol use.[30] It considers moderate, non-problematic cannabis use a "mental disorder," but goes out of its way to make the case that the moderate use of alcohol — a more addictive and potentially harmful substance — is not a disorder. It even notes, "[S]ocial drinking frequently causes loquacity, euphoria, and slurred speech; but this should not be considered Intoxication unless maladaptive behavior, such as fighting, impaired judgment, or impaired social or occupational functioning, results." In other words, drinking to the point of experiencing euphoria and slurred speech is not considered "intoxication," whereas using any amount of cannabis should be considered "intoxication."

The DSM survey is also conducted under the assumption that using cannabis on six occasions could constitute dependence, whereas using alcohol on any number of occasions might not. Specifically, the DSM considers someone dependent if they report that at least three of seven statements about their cannabis use apply to them. For example, it asks if "a great deal of time was spent in activities necessary to get the substance." Because cannabis is illegal in most of the country, it is quite likely that the individual had to spend more time trying to get it, but that does not suggest they are addicted. It also asks if "important social, occupational, or recreational activities [were] given up or reduced because of use." Yet, some people might lose their jobs if they get arrested or fail a workplace drug test, or they might feel they have fewer opportunities because they are worried prospective employers will require drug tests. Again, this does not make someone "addicted" to cannabis. A third criterion is whether the individual's use increases as they become tolerant of the substance. If someone experiences increased tolerance of the substance and uses more to get the desired effect, yet experiences no problems as a result, they should not be considered "addicted" to the substance. A couple other DSM criteria for dependence are similarly suspect.

It is worth noting that some research has concluded that allowing people to use cannabis could produce a reduction in their consumption of more addictive substances. For example, a study performed by a researcher at the University of California, Berkeley found that "medical marijuana patients have been engaging in substitution by using cannabis as an alternative to alcohol, prescription and illicit drugs." It also recommended further research to determine whether "substitution might be a viable alternative to abstinence for those who are not able, or do not wish to stop using psychoactive substances completely."[31] This hypothesis will surely be explored as states continue to remove legal barriers to adult cannabis consumption.

• Most people in treatment for cannabis were ordered there by the criminal justice system. In other words, they didn't actually seek or need treatment, but were arrested and offered treatment as an alternative to jail time or other serious penalties. According to data released in 2017 by the Substance Abuse and Mental Health Services Administration (SAMHSA), more than half of the people in drug treatment primarily for cannabis were referred by the criminal justice system, and fewer than one in five checked themselves in voluntarily or were referred by another individual.[32]

Essentially, the government arrests people for using cannabis and forces them into treatment, and then it and other opponents of cannabis policy reform use those treatment admissions as "proof" that cannabis is addictive. The real scandal here is that countless needed treatment slots are being wasted on responsible cannabis users whose only problem with the drug was that they got caught with it.

#### **Mental Health**

• The evidence shows no causal relationship between cannabis use and the onset of mental health conditions. Many opponents misrepresent a 2017 report by the National Academies of Sciences, Engineering, and Medicine, which found an *association* between cannabis use and schizophrenia, not that cannabis use *causes* In fact, the report itself noted, "In certain societies, the incidence of schizophrenia has remained stable over the past 50 years despite the introduction of cannabis into those settings." Surely if marijuana use caused

schizophrenia, that would not be the case.

Further, one of the committee members of the study, Ziva Cooper, rebutted the claim that cannabis use causes schizophrenia in a series of Tweets. Cooper wrote, "Since the report, we now know that genetic risk for schizophrenia predicts cannabis use, shedding some light on the potential direction of the association between cannabis use and schizophrenia."

Similarly, if cannabis causes psychosis, rates of psychosis should rise if cannabis use goes up, but that has not happened. According to a report published by the prestigious British medical journal *The Lancet*, cannabis use skyrocketed in the 1960s and 1970s, but there was no significant increase in rates of psychosis.[33] In 2009, researchers at the Keele University Medical School in Britain arrived at a similar conclusion: "[1]ncreases in population cannabis use have not been followed by increases in psychotic incidence."[34]

In late 2005, the British government's scientific advisors on drug policy reviewed the evidence surrounding cannabis and mental illness and determined that the data do not demonstrate that cannabis causes depression, anxiety, or bipolar disorder.[35] Specifically, the British Advisory Council on the Misuse of Drugs concluded, "The evidence for the existence of an association between frequency of cannabis use and the development of psychosis is, on the available evidence, weak." A study published in the journal *Addictive Behaviors* in 2006 found lower rates of depression in cannabis users than in non-users.[36]

There have been a handful of studies that have identified a minor association between chronic cannabis use and increased symptoms of mental health conditions, but other studies have failed to find such a link.[37], [38] Confounding factors such as poly-drug use, family history, and poverty make it difficult to study cannabis's potential impact on mental health.

• Cannabis affects different people differently — like many substances, it can be problematic for some people and beneficial for others. The relationship between cannabis and schizophrenia is a lot like sugar and diabetes. Both illnesses are primarily genetic in origin. Sugar can set off a diabetic attack in vulnerable individuals, and cannabis can set off or worsen a psychotic reaction in schizophrenics or in people with a genetic predisposition to schizophrenia. That's not the same thing as causing the illness in the first place. There are some people who shouldn't use cannabis, just like there are some people who should avoid sugar.

It is worth noting that survey data and anecdotal reports of individuals finding therapeutic relief from depression and other mental conditions are not uncommon. Clinical testing on the use of cannabinoids to treat certain symptoms of mental illness has been recommended.[39]

# **Brain Damage**

• There is no conclusive evidence that cannabis kills brain cells or causes brain damage, even in long-term heavy consumers. According to research published in the *Journal of Neuroscience* in January 2015, even daily cannabis use is not associated with changes in brain volume in adults or adolescents, noting it "lack[s] even a modest effect."[40] They also found significant inconsistencies among scientific papers that claimed cannabis causes parts of

the brain to shrink.

#### **Decline in IQ**

• There is no conclusive evidence that cannabis use results in lowered IQ. In 2014, researchers at University College London reported to the annual congress of the European College of Neuropsychopharmacology that they found "no relationship between cannabis use and IQ," even among the heaviest users. They also reported that alcohol use is strongly associated with a decline in IQ.[41]

Supporters of maintaining cannabis prohibition often cite a 2012 Duke study (based on data from New Zealand) that was published in the *Proceedings of the National Academy of Sciences (PNAS)*, which linked minors' chronic cannabis use to a long-term reduction in IQ. But they typically fail to mention that the same journal published an analysis later that year that criticized the study for having flawed methodology.[42] In summary, it failed to account for the low socioeconomic status of many of the study's participants, and research has found that adolescents of low socioeconomic status tend to experience declines in IQ regardless of cannabis use. A study published by the *Canadian Medical Association Journal* that included only middle-class participants found that IQ only decreased among current cannabis consumers, and even in heavy users, it rebounded after they stopped using it.[43]

It is also worth noting that one of the researchers who performed the New Zealand study told news sources "[she] is fairly confident that cannabis is safe for over-18 brains."[44]

#### **Motivation and School/Job Performance**

- The claim that cannabis makes people "amotivated" is a myth that has been repeatedly debunked by experts. In its comprehensive 1999 report on cannabis, the National Academy of Sciences' Institute of Medicine concluded, "no convincing data demonstrate a causal relationship between cannabis smoking and these behavioral characteristics."[45] Similarly, an Australian government review produced by several of the world's leading experts concluded, "There is no compelling evidence for an amotivational syndrome among chronic cannabis users."[46] An analysis released by the World Health Organization in 1995 arrived at a similar conclusion.[47] Some studies of college students have found that cannabis consumers actually earn higher grades than non-users.[48]
- Any substance or behavior can potentially interfere with an individual's ability to perform well at work or in school. Whether it's cannabis, alcohol, food, or video games, too much of it can be problematic for some people. The vast majority of cannabis users do not encounter such problems.

#### **Gateway Theory**

- The so-called "Gateway Theory" has been debunked repeatedly. Most recently, the National Academies of Sciences, Engineering, and Medicine reported in February 2017 that there is no substantial link between cannabis use and the use of other illegal drugs.[49] A 1999 study by the National Academies' Institute of Medicine found that cannabis "does not appear to be a gateway drug to the extent that it is the cause or even that it is the most significant predictor of serious drug abuse; that is, care must be taken not to attribute cause to association."[50] In June 2015, the American Journal of Drug and Alcohol Abuse published research that concluded cannabis use itself was not a risk factor for use of other substances.[51]
- If there is a "gateway drug," it is alcohol, which almost always precedes the use of cannabis.[52] But just as alcohol use does not cause people to use cannabis, using cannabis does not cause people to use other illicit drugs. In other words, there is correlation but not causation. Given the wide-scale availability and popularity of alcohol and cannabis, it comes as little surprise that people who use other illicit drugs previously tried alcohol and cannabis.
- The vast majority of people who have used cannabis never try any other drugs. About half of all Americans have used cannabis at some point in their lives.[53] Yet, only 3.4% have ever tried crack, only 1.9% have ever tried heroin, and fewer than 15% of Americans have ever tried cocaine, the second most popular illegal drug after cannabis.[54] If using cannabis caused people to use other drugs, there would be far more users of other drugs.
- By forcing cannabis consumers into the underground market, we are dramatically increasing the possibility that they will be exposed to other more dangerous drugs. According to a 1997 report published by the Netherlands Institute of Mental Health and Addiction: "There is no physically determined tendency toward switching from marijuana to harder substances. Social factors, however, do appear to play a role. The more users become integrated in an environment ('subculture') where, apart from cannabis, hard drugs can also be obtained, the greater the chance that they may switch to hard drugs. Separation of the drug markets is therefore essential."[55]

#### **Cannabis Is Not Harmless**

- No drug is entirely harmless, including cannabis, and we've never said it is. But it's also true that independent scientific and government reviews have concluded that the health risks of cannabis are much lower than those of alcohol and tobacco, and that those risks don't justify arresting and jailing responsible, adult cannabis users. (See other sections regarding relative harms of cannabis compared to other substances.)
- We need to be honest about the actual harms of all substances, and it would be irresponsible not to discuss the fact that cannabis is objectively less harmful than alcohol. Do you think people should be aware of the fact that cannabis poses less potential harm to the consumer than heroin or methamphetamine? Why wouldn't we want people to be aware of the fact that cannabis is less harmful than alcohol, too?

#### Potency and Concentrates (Oils, Hashes, Waxes, Kief, "Dabs")

- Even the most potent cannabis is far less harmful than alcohol. The Centers for Disease Control and Prevention (CDC) attributes about 35,000 deaths per year in the U.S. to alcohol use alone, including hundreds from overdoses. It attributes zero to cannabis, and there has never been a fatal cannabis overdose in history.[56] "You can die binge-drinking minutes after you've been exposed to alcohol. That isn't going to happen with marijuana," according to Ruben Baler, a health scientist at the National Institute on Drug Abuse (NIDA).[57]
- Like alcohol, there are more potent and less potent types of cannabis, and regulating cannabis will ensure consumers know what they are getting. Some people prefer to have a cocktail instead of a beer, and as a result, they know to drink less of it. By regulating cannabis like alcohol, we can ensure it is packaged and labeled properly. It would be unthinkable to sell beer and tequila side-by-side without having them labeled so people know one is far stronger than the other.
- If cannabis concentrates are banned, they will end up being produced and sold in the same underground market we are trying to eliminate. We should ensure these products are being produced safely and responsibly by licensed businesses in appropriate locations.

# Teen Use

- A majority of Americans support making cannabis legal, and they care just as much about protecting young people as those who wish to keep cannabis illegal. They simply believe regulation would be a more effective way of doing it.
- Cannabis prohibition has failed miserably at keeping cannabis out of the hands of teens. From 1975-2012, 80-90% of 12th graders consistently reported that cannabis was "fairly easy" or "very easy" to obtain. For the first time since the survey began 40 years ago, high school seniors' perception of cannabis's availability has dipped below 80% *after* states began to legalize cannabis.[58] If a key goal of prohibition is to keep cannabis out of the hands of young people, yet more than 80% could get it easily, that is a sign that the policy failed. It's time for a more thoughtful approach.
- By forcing cannabis into an underground market, we are guaranteeing that sales will be entirely uncontrolled. Illegal cannabis dealers do not ask for ID, they sell a product that is unregulated and possibly impure, and they might expose consumers to other more harmful drugs. In a regulated market, businesses would be required to ask customers for proof of age, and they would face severe penalties for selling cannabis to minors.
- Strictly regulating alcohol and tobacco products and restricting sales to minors have produced significant decreases in use and availability among teens. The rate of teen cannabis use has generally remained steady over the past several years, whereas levels of alcohol and cigarette use have decreased.[59] Over the past several years, cigarette use and availability among teens, which had been sharply increasing in the early 1990s, began steadily declining shortly after the 1995 implementation of the "We Card" program, a renewed commitment to strictly restricting the sale of tobacco to young people, along with a focused

effort on public education. Ultimately, we were able to dramatically reduce teen tobacco use without arresting any adults for using tobacco.

• Research has shown that reforming cannabis laws does not increase teen cannabis use. A study published in the *Journal of the American Academy of Child & Adolescent Psychiatry* in 2016 found that the number of teens using cannabis — and the number with problematic use — is falling as more states legalize or decriminalize cannabis. The findings were based on a survey of more than 200,000 youth in all 50 states. Government surveys of students in states with medical cannabis and legalization laws have consistently shown humane cannabis policies do not result in increases in teen cannabis use.[60] According to the most comprehensive surveys, no state has seen an overall increase outside of the confidence interval since passage.

Data has long shown that medical cannabis protections do not cause teen cannabis use rates to increase. A 2015 national study covering 24 years of data published in *The Lancet* found that medical cannabis laws do not lead to an increase in teen cannabis use. According to the lead researcher, the findings "provide the strongest evidence to date that marijuana use by teenagers does not increase after a state legalizes medical marijuana."[61] Similarly, as the American Academy of Pediatrics noted in its statement supporting decriminalization, "Decriminalization of recreational use of marijuana by adults has also not led to an increase in youth use rates of recreational marijuana."

- Available data suggests that legalizing and regulating cannabis for adult use has not led to increases in teen use. In February 2017, the Colorado Department of Public Health and Environment reported the rate of cannabis use among adolescents "has not changed since legalization either in terms of the number of people using or the frequency of use among users. ...Based on the most comprehensive data available, past-month marijuana use among Colorado adolescents is nearly identical to the national average."[62] It based this conclusion on the results of its biannual Healthy Kids Colorado Survey (HKCS), which found 21.2% of high school students in Colorado reported using cannabis within the past 30 days in 2015 (compared to 21.7% nationwide). This was a slight drop from 22% in 2011, the year before the state approved a legalization initiative. HKCS's 2017 study shows the favorable trend has continued: 19.4% of high school students in Colorado reported using cannabis within the past 30 days in 2017.
- Washington has had a similar experience since voters legalized cannabis in 2012. The Washington State Healthy Youth Survey, a state-run survey of 37,000 middle and high school students, found that the rate of cannabis use remained basically unchanged from 2012-2018. Similarly, Oregon's Health Teens Survey found no increase from 2013- 2017. The CDC's Youth Risk Behavior Survey conducts large-scale surveys in five legalization states — Alaska, California, Massachusetts, Maine, and Nevada. Its before-and-after data shows no statistically significant increases in high schoolers' past-30-day cannabis use. (Four of the states' data indicated decreases within the confidence interval, while Alaska's data indicated an increase within the confidence interval.)[63]

The head of the National Institute on Drug Abuse (NIDA), Nora Volkow, has acknowledged that cannabis usage rates have not risen in recent years despite changes in policy and public attitudes. "All of those factors have led many to predict that there would be an increase in the pattern of use of marijuana among teenagers and we are not seeing it," she said in an interview in December 2015.[64] She echoed the same point a year later: "We had predicted

based on the changes in legalization, culture in the U.S. as well as decreasing perceptions among teenagers that marijuana was harmful [and] that [accessibility and use] would go up. But it hasn't gone up."[65]

#### Sending the Wrong Message to Teens

- Cannabis is already widely available and widely used regulating it simply sends the messages that cannabis is for adults and should be handled responsibly. Cannabis prohibition laws, which allow adults to use alcohol but punish them for using a less harmful substance, are intellectually dishonest. Once young people realize that cannabis is not as dangerous as they have been led to believe, they are less likely to trust authorities' warnings about other more dangerous drugs.
- Cannabis prohibition laws send the inaccurate and potentially dangerous message that cannabis is more harmful than alcohol. By allowing adults to use alcohol and making it a crime for them to use cannabis, our laws are steering people toward using the substance that is much more likely to cause harm to them or those around them. Our laws should reflect the facts, and it is a fact that cannabis is less harmful than alcohol.

# **Continuing Racial Disparities in Enforcement**

- Advocates of reform do not claim decriminalization or legalization will make racial disparity in enforcement disappear. Pointing out that racial disparities exist and that ending cannabis prohibition can decrease the impacts of those disparities is not the same as saying racial disparities will end. Changing policies merely takes away some the mechanisms most commonly used for racially unequal policing.
- Decreases in arrests, searches, and convictions are a net benefit. While disparities continue to be found in arrest rates for things like underage consumption and public use after legalization, the overall decrease in arrests results in fewer people of color being arrested or fined. Following legalization, both the number of searches during traffic stops and the disparities in those searches plummeted in both Washington and Colorado.[66] Unnecessary searches can be intrusive, traumatic, dangerous, and destroy trust between law enforcement and communities.

#### Legal Age (18 vs. 21 vs. other ages)

• Like with alcohol, it will be up to lawmakers and/or voters to decide the appropriate legal age for using cannabis. Some people believe the legal age should be 18 because the individual is legally an adult and cannabis is far less harmful than alcohol and tobacco. Others think it should be 19 or older because 18-year-olds are still in high school and might be tempted to purchase it for their underage friends. Many people think the age limit should be 21 because, like alcohol, cannabis is intoxicating. It could be different from state to state as it used to be for

alcohol, or a national legal age could be set at some point.

So far, every legalization state in the U.S. has set the age at 21. In Canada, the legal age for cannabis has mirrored the legal drinking age, which is 18 or 19, depending on the province.

#### **Crime and Violence**

• Research generally shows that cannabis — unlike alcohol — is not linked to violent or aggressive behavior. The National Academies of Sciences, Engineering, and Medicine performed an analysis of more than 10,000 scientific abstracts about cannabis and did not appear to find a link between cannabis use and violent behavior. In fact, research often shows cannabis use reduces the likelihood of that an individual will act violently. According to research published in the journal, *Addictive Behaviors*, "Alcohol is clearly the drug with the most evidence to support a direct intoxication-violence relationship," whereas, "Cannabis reduces the likelihood of violence during intoxication."[67]

The U.S. Department of Health and Human Services estimates that 25% to 30% of violent crimes and 3% to 4% of property crimes in the U.S. are linked to the use of alcohol.[68] According to a report from the U.S. Department of Justice, that translates to nearly 5,000,000 alcohol-related violent crimes per year.[69] By contrast, the government does not even track violent acts specifically related to cannabis use, as the use of cannabis has not been associated with violence. If we truly want to reduce the likelihood of violence in our communities, we should be allowing adults to use cannabis instead of alcohol, if that is what they prefer.

Some opponents of cannabis policy reform claim cannabis users commit crimes to support their use of cannabis. Yet, cannabis is no more addictive than coffee, which is why neither cannabis users nor coffee drinkers commit crimes to support their use.

- Alcohol is a particularly significant factor in the prevalence of domestic violence and sexual assault, whereas cannabis is not. This is not to say that alcohol causes these problems; rather, its use makes it more likely that an individual prone to such behavior will act on it. For example, investigators at the Research Institute on Addictions reported, "The use of alcohol... was associated with significant increases in the daily likelihood of male-to-female physical aggression," whereas the use of marijuana was "not significantly associated with an increased likelihood of male partner violence."[70] Specifically, the odds of abuse were eight times higher on days when men were drinking; the odds of severe abuse were 11 times higher. The Rape, Abuse and Incest National Network' (RAINN) webpage dedicated to educating the public about "Drug Facilitated Sexual Assault" highlights alcohol as the "most commonly used chemical in crimes of sexual assault" and provides information on an array of other drugs that have been linked to sexual violence.[71] The words "marijuana" and "cannabis" do not appear anywhere on the page.
- Legalization has not corresponded with increased crime rates. Government-published data, academic research, and the experiences of many law enforcement officials indicate that cannabis policy reform does not increase crime rates. Relying on statistics from the FBI's Uniform Crime Reports, peer-reviewed studies have analyzed changes after passage of both

adult-use legalization and medical cannabis laws. Contrary to assertions made by some opponents of legalization, there is no compelling basis for claims that legalizing cannabis and establishing regulated markets undermines public safety.

• **Cannabis prohibition leads to violence.** Virtually all the crime associated with cannabis is a direct result of its prohibition. Cannabis prohibition has relegated the sale of cannabis to criminal enterprises. In doing so, it is exposing many consumers to more harmful people and products. And since cannabis is illegal, these individuals are unable to rely on law enforcement officials to step in when business-related disputes and incidents occur. Violence is often employed to expand turf, which results in violence that affects not just cannabis dealers and consumers, but the broader communities of which they're a part. A peer-reviewed paper in *The Economic Journal* supports the argument that legalizing cannabis reduces crime by displacing illicit markets traditionally controlled by drug cartels and illicit distributors.[72]

Meanwhile, legalizing cannabis also frees up police time for crimes with victims. In a 2018 analysis, experts at Washington State University found that police solved significantly more violent and property crimes after passage of legalization laws in Colorado and Washington.[73]

 States' experiences with medical cannabis dispensaries and retailers have demonstrated that there is no link between regulated cannabis businesses and crime

 in fact, they might reduce it. A study published in 2013, which was conducted at the University of California at Los Angeles and funded by the National Institute on Drug Abuse (NIDA), concluded: "[The] results suggest that the density of [medical marijuana dispensaries] may not be associated with increased crime rates or that measures dispensaries take to reduce crime (i.e., doormen, video cameras) may increase guardianship, such that it deters possible motivated offenders."[74]

A 2017 study funded by the National Institute on Drug Abuse (NIDA) found that the *closure* of dispensaries around Los Angeles was associated with an *increase* in crime in surrounding areas.[75] The following year, researchers from RAND reported a "negative and significant relationship between dispensary allowances and property crime rates."[76]

# **Driving Under the Influence**

- It is currently illegal to drive while impaired by cannabis, and it will remain illegal after cannabis is regulated and legal for adults. Since law enforcement officials will no longer need to spend time arresting and prosecuting adults for possessing cannabis, they will have more time to spend enforcing laws against driving under the influence of alcohol, cannabis, and other substances.
- Statistics connecting cannabis use to traffic accidents are generally unreliable. For example, cannabis can remain detectable in a user's system for several days or even several weeks after he or she consumes cannabis, and the data on traffic accidents usually does not differentiate between whether a driver was actually under the influence at the time of the accident. Oftentimes, the data also does not differentiate between which driver was at fault, meaning drivers who tested positive for cannabis may not have actually caused the accident. It is also worth noting that many fatal accidents don't involve testing for the prevalence of drugs,

and in some states it is involved in fewer than half. [77], [78]

In addition, some increases in cannabis detection in accidents can be attributed to increased rates of testing after cannabis became legal.

• Data and research studies cast doubt on the link between legalization and increased traffic safety problems. Though some research has found a modest increase in traffic fatalities in Colorado and Washington post-legalization, other studies have reached different conclusions, and there are good reasons to doubt claims that legalization causes an increase in fatal crashes.

A paper published by the National Bureau of Economic Research analyzed the rates of drivers found with THC (cannabis's primary psychoactive ingredient) in their systems after fatal car crashes from 2013 to 2016. The researchers then compared the patterns of THC-positive drivers in Colorado and Washington during that time period to those in other states. In a summary of their results, the authors wrote, "We find the synthetic control groups saw similar changes in marijuana-related, alcohol-related and overall traffic fatality rates despite not legalizing recreational marijuana."

Furthermore, according to data from the Fatality Analysis Reporting System, four of the eight states that legalized cannabis from 2012 through 2016 saw decreased rates of fatal car crashes following passage of legalization laws. These reduced crash rates were greater than the reduction seen on the national level over the same time period.

Data from the Colorado Department of Transportation do not support the assertion that cannabis-impaired driving is becoming a more significant problem in the state. In 2016 (when the state initiated uniform reporting procedures for cannabis impaired driving cases), there were 51 "cannabis-involved fatalities." In 2017 and 2018, the state reported 35 and 31, respectively.[79]

• Drivers can be tested for cannabis, and it is currently being done throughout the country. Typically, blood tests and urinalysis are used to determine whether a driver has consumed cannabis. Urinalysis can detect the presence of cannabis even if it was consumed days or weeks earlier, so it is not a good indicator of whether a driver is actually under the influence. Blood tests are far more demonstrative of whether an individual is actually "under the influence," and states have adopted laws that establish a "legal limit" for cannabis.

For example, Washington has established a "per se" limit of five ng/ml of THC in the blood, meaning any person found at or above that level is automatically deemed impaired (just as a person with a 0.08 blood alcohol concentration is automatically deemed impaired). There is evidence that some cannabis consumers maintain levels of five ng/ml of THC or more for several hours or even days after they have consumed, which has led to criticism that such "per se" standards can result in unimpaired drivers being charged for driving while impaired. In light of that evidence, Colorado has established a limit of five ng/ml with "rebuttable presumption," meaning an individual is not automatically deemed impaired and can challenge the charge in court.

Clearly, there is still a need to determine whether a driver is impaired by cannabis, but states

already have Drug Recognition Expert training for just that purpose. Police use this training to detect drivers impaired by an array of prescription, over-the-counter, and illicit drugs. Any standards and penalties that are adopted should reflect existing science and must be based on demonstrating actual driving impairment.

#### **Employment Issues and Drug Testing**

- State voters or lawmakers can adopt laws that allow employers to maintain or create employment policies that prohibit the use of cannabis by employees on and off the job. Most of the legalization laws require employers to change their employment or drug testing policies. In one state, Nevada, a law does not allow a person to be denied employment based on a pre-employment drug screen, unless the employee has a safety-sensitive position, including a job that "in the determination of the employer, could adversely affect the safety of others."
- There are laws in place that ensure employers have the ability to prohibit the use of cannabis by employees in "high-risk" or "safety-sensitive" positions. Don't be fooled by opponents who claim making cannabis legal for adults will result in surgeons, pilots, truck drivers, and electrical line workers performing their jobs under the influence of cannabis.
- Adults should not be punished for using cannabis outside of the workplace unless there is some sort of extenuating circumstance, just as they should not be punished for consuming alcohol outside of the workplace. It's worth noting that alcohol can produce a hangover, which can negatively affect an employee's performance the day after he or she consumes it, whereas cannabis does not produce hangovers.

Because of how the body metabolizes cannabis, urinalysis can detect it in the body for up to several weeks. The effects of cannabis, however, only last for up to several hours. Any employee drug-testing program should take this into account to ensure employees are not being punished for consuming cannabis outside of the workplace. Since cannabis is detectable for much longer than other substances, testing employees for it could steer them toward drinking or using other less detectable drugs.

Employees should not perform potentially dangerous work when impaired by *anything*, be it sleep deprivation, prescription drugs, over-the-counter medication, or alcohol. The best way to keep workplaces safe is to ensure employees are fit to perform their duties. Cognitive awareness impairment alertness testing is likely a better solution than periodically testing employees' urine for specific substances.

• Adopting a law that regulates cannabis like alcohol would not be a violation of the **Federal Drug Free Workplace Act.** The FDFW Act simply requires employers to have a drug policy and to have penalties for violations of that policy.

# Industry Concerns ("Big Tobacco," Advertising, Etc.)

- Why would we want cannabis to be sold by illegally instead of licensed businesses? Cannabis is widely available, widely used, and objectively less harmful than alcohol. There is no reason why we should be leaving it in the underground market where its cultivation and sale are entirely uncontrolled.
- This is a new industry, and we have the opportunity to create responsible regulations right off the bat. State and local governments are able to create broad rules covering advertising, labeling, testing, serving sizes, additives, permissible financial interests, production caps, licensing classes, etc. Cannabis businesses and business groups are pushing for strong and sensible regulations since they are needed in order to establish and maintain a legitimate cannabis industry. For example, Colorado's largest cannabis industry organization was a vocal supporter of a successful 2012 effort to ban outdoor advertising by cannabis businesses in Denver.[80] Ultimately, nobody wants to ensure these businesses are following all of the regulations more than the businesses themselves.
- The tobacco industry was initially poorly regulated, and there was not nearly as much public knowledge about the health effects of tobacco as we currently have for cannabis. For example, tobacco companies are now notorious for having used additives to make their products more addictive. Such practices are banned in legalization states.

The biggest problem with the tobacco industry is that it sells an exceptionally dangerous product. Its use alone kills hundreds of thousands of Americans per year, according to the Centers for Disease Control and Prevention (CDC), whereas zero deaths are attributed to cannabis use. Overall, the health-related costs for tobacco consumers are 40 times greater than those for cannabis consumers. More specifically, the annual health-related costs of tobacco consumption are \$800 per user compared to just \$20 per user for cannabis.[81]

# **Controlling the Illicit Market**

• While it will not happen overnight, within a few years of implementation of a state cannabis regulation law, intrastate demand should be fully satisfied by the regulated market, if enough supply and outlets are allowed. The Colorado Marijuana Enforcement Division's Market Size Demand for Marijuana in Colorado Market 2017 Update reported that, "Colorado's preexisting illicit marijuana market for residents and visitors has been fully absorbed into the regulated market."

However, as long as dozens of U.S. states maintain prohibition, their demand will be served by illegal production somewhere. Colorado, Oregon, and California have long been sources of cannabis exported to other states, and there is no reason to expect that to stop until other states have their own legal supplies.

# **Slippery Slope Toward Legalizing All/Other Drugs**

 Every substance should be treated based on its relative harms and the facts surrounding it — cannabis is far less harmful than alcohol and should be treated that **way.** We can have different policies for cannabis, cocaine, and heroin, just as we now have different policies for alcohol, tobacco, and cannabis. Drugs are not all the same, and our laws should reflect that. Cannabis policy reform is being debated because cannabis is widely recognized as a substance that should be made legal and regulated. We are not proposing changes to any laws other than cannabis laws.

#### Cannabis Use is Wrong/Immoral

• Americans differ about the morality of many things, but our public policies should be focused on minimizing harm to individuals and to the community. Some people consider alcohol use immoral, but most recognize that alcohol prohibition was a disaster. Cannabis prohibition has been just as big a failure, and it has caused far more harm than cannabis itself.

# <u>Cannabis Possession Laws Are Not Enforced / Nobody Actually Gets Arrested / Nobody</u> <u>Faces Serious Consequences</u>

• Roughly 663,300 Americans were arrested or cited for cannabis-related offenses in 2018, and almost 92% were for possession alone.[82] That's one possession arrest every 48 seconds, and it's more arrests than for all violent crimes combined. It's true that most people arrested for possession do not go to prison, but they all do face potentially life-altering consequences. They will have a drug-related offense on their record. Many people lose their jobs or find it difficult to gain employment. Parents can lose custody of their children. College students can lose their federal financial aid. Non-citizens can be forced to leave the country. People lose their public housing benefits. And those who are on parole or probation, or who have past offenses, could very well find themselves in jail or prison. According to leading cannabis policy researchers, "About 40,000 state and federal prison inmates have a current conviction involving marijuana; perhaps half of them are in prison for offenses related to marijuana alone."[83]

#### "Legalization" vs. "Decriminalization" vs. "Regulation"

• The term "legalization" without mentioning "regulation" often leaves far too much to the imagination. Would it be available to people of all ages or only to those 18 and older or 21 and older? Would it be legal like tomatoes? Would it be sold only in state-licensed businesses? Referring to "legalizing and regulating cannabis" or "treating cannabis similarly to alcohol" makes it more apparent that cannabis would be legal only for adults.

Only in a legal, *regulated* market can consumers and the environment benefit from rules to prevent the use of dangerous pesticides, testing and potency laws, and environmental protections.

• The word "decriminalization" can be a source of confusion. It generally refers to a

system of reduced penalties for possession of a small amount of cannabis (usually a fine but not jail, oftentimes without formal arrest and booking), with more severe penalties retained for cultivation, sales, and possession of larger amounts. Decriminalization is not the best solution because it leaves cannabis production and distribution in the criminal market and continues to punish adults for responsible cannabis use.

• **Regulation is the most realistic and effective alternative to prohibition.** Under such a system: there would be a strictly enforced legal age limit for purchasing and using cannabis; cannabis and cannabis-infused products would be produced, distributed, and tested by state-licensed businesses; adults of legal age would be permitted to grow limited amounts of cannabis for personal use (similar to home-brewing); and cannabis would be subject to local and state sales taxes, as well as reasonable excise taxes established by voters or their elected representatives.

#### Legalization and Prohibition are Both Too Extreme (Project SAM's "third way")

• The proper balance between incarceration and unrestrained legalization is regulation. We need a cannabis policy that reflects the realities of cannabis and minimizes the harm surrounding it. Cannabis is relatively safe for responsible adult use, it is widely available and commonly used, and it's not going anywhere anytime soon. As such, its production and distribution should be regulated and controlled, not left to the underground market. Any policy that keeps cannabis illegal for adults is not a "third way," it's the same way we've been treating cannabis for decades. Coercive treatment programs that give arrestees the choice to go to treatment are not viable alternatives because they can still result in criminal sanctions and can cause space shortages in treatment facilities that could be devoted to voluntary admissions.

# Federal Law

• The U.S. Department of Justice (DOJ) made it exceptionally clear that states can regulate the cultivation and sale of cannabis for adult use. In an August 2013 memo, then-Deputy Attorney General James Cole said the DOJ would refrain from interfering as long as states are establishing and enforcing regulations that adequately address specific federal interests, such as restricting cannabis sales to minors and preventing inter trafficking. In fact, the DOJ memo acknowledged that regulating cannabis might be more effective than prohibition when it comes to addressing those interests. In particular, it notes that the establishment of large for-profit cannabis businesses could be beneficial.[84]

While former Attorney General Jeff Sessions rescinded the Cole memo, in practice his Justice Department did not appear to target any businesses in compliance with it. Moreover, Attorney General nominee William Barr has said in writing he plans to follow the Cole memo.

• Thirty-six states and the District of Columbia have legalized medical cannabis, and many of them — including our nation's capital — are regulating the cultivation and sale of medical cannabis.

• Fifteen states have legalized cannabis for adults' use, without facing any significant federal interference. Colorado, Washington, Alaska, Oregon, California, Maine, Massachusetts, Nevada, Michigan, Arizona, Montana, New Jersey, and South Dakota all passed voter-enacted initiatives to legalize, tax, and regulate cannabis, with the first laws passing back in 2012. In 2019, Illinois became the 11th state to legalize cannabis for adult use — and the first state in the country to adopt a regulatory system for cannabis cultivation, testing, and sales through a state legislature. Meanwhile, Vermont's legislature and governor legalized personal possession in 2018 and enacted a regulatory system for sales in 2020. Regulated sales have begun in all of the states except Arizona, Montana, New Jersey, South Dakota, and Vermont (all of these laws passed in 2020 and are awaiting implementation).

#### **International Drug Control Treaties**

• International drug treaties allow considerable flexibility. In the U.S., 36 states, four U.S. territories, and Washington, D.C., have comprehensive medical cannabis laws, while another 13 states have more limited medical cannabis laws.

Both Canada and Uruguay allow adult-use cannabis sales nationwide. The U.S. has traditionally been the driving force behind these prohibitionist treaties, and we can renegotiate them anytime if it becomes necessary. It does not appear it will be.

[1] Jeffrey Jones, "U.S. Support for Legal Marijuana Steady in Past Year," *Gallup*, October 23, 2019. <u>https://news.gallup.com/poll/267698/support-legal-marijuana-steady-past-year.aspx</u>

[2] https://www.pewresearch.org/fact-tank/2019/11/14/americans-support-marijuana-legalization/

<sup>[3]</sup> American Civil Liberties Union. "A Tale of Two Countries: Racially Targeted Arrests in the Era of Marijuana Reform," April 2020. .

<sup>[4]</sup> Special Senate Committee on Illegal Drugs. *Final Report: Cannabis: Our Position for a Canadian Public Policy.* (2002).

<sup>15]</sup> Wagenaar AC, Harwood EM, Toomey TL, Denk CE, Zander KM. "Public opinion on alcohol policies in the United States: Results from a national survey." *Journal of Public Health Policy* 21 (2003): 303–27.

<sup>[6]</sup> Kochanek KD, Murphy SL, Xu JQ, Arias E, "Deaths: Final data for 2017," *National Vital Statistics Reports* Vol. 68 No. 9 (2019): 13. <u>https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68\_09-508.pdf</u>

<sup>[7]</sup> Lachenmeier DW, Rehm J. "Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach." *Scientific Reports* 5 (2015): 8126.

<sup>[8]</sup> National Academies of Sciences, Engineering, and Medicine. "The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research." (2017).

<sup>[9]</sup> Ibid.

<sup>[10]</sup> Centers for Disease Control. "Vital Signs: Alcohol Poisoning Deaths — United States, 2010–2012." *Morbidity and Mortality Weekly Report* Vol. 63 No. 53 (2015): 1238-1242.

<sup>[11]</sup> Gable, Robert. "The Toxicity of Recreational Drugs: Alcohol is more lethal than many other commonly abused substances," *American Scientist* Vol. 94 No. 3 (2006): 206-208.

<sup>[12]</sup> Young, Francis L. "In the Matter of Marijuana Rescheduling Petition." *DEA Docket No. 86–22*, September 6, 1988.

<sup>[13]</sup> Iverson, Leslie, "Long-term Effects of Exposure to Cannabis," *Current Opinions in Pharmcacology* 5 (2005): 69–72.

<sup>[14]</sup> Hall, Wayne. "A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine, and Opiate Use." (1995). National Drug and Alcohol Research Centre.

<sup>[15]</sup> Thomas G, Davis C. "Cannabis, Tobacco and Alcohol Use in Canada: Comparing risks of harm and costs to society." *Visions Journal* Vol. 5 No. 4 (2009): 11.

<sup>[16]</sup> National Academies of Sciences, Engineering, and Medicine. "The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research." (2017).

<sup>[17]</sup> Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base* (Washington, D.C.: National Academy Press, 1999).

<sup>[18]</sup> Sidney, et al., "MarijuanaUse and Cancer Incidence," *Cancer, Causes, and Control* 8 (1997): 722–28.

<sup>[19]</sup> Hashibe, et al., "Cannabis Use and the Risk of Lung Cancer and Upper Aerodigestive Tract Cancer: Results of a Population-based Case-control Study," *Cancer Epidemiology Biomarkers and Prevention* 15 (2006): 1829–34.

<sup>[20]</sup> Mark Kaufman, "Study Finds No Cancer-Marijuana Connection," *Washington Post*, May 26, 2006.

<sup>[21]</sup> Sarfaraz, et al., "Cannabinoids for Cancer Treatment: Progress and Promise," *Cancer Research* 68 (2008): 339-42.

<sup>[22]</sup> Manuel Guzman, "Cannabinoids: Potential Anticancer Agents," *Nature Reviews Cancer* 3 (2003): 745–755.

<sup>[23]</sup> American Cancer Society, *Cancer Facts & Figures 2013*, Atlanta: American Cancer Society (2013).

<sup>[24]</sup> Tashkin, Donald, "Effects of Marijuana Smoking on the Lung," *Annals of the American Thoracic Society* Vol. 10, No. 3 (2013): 239-247.

<sup>[25]</sup> Pletcher, et al., "Association Between Marijuana Exposure and Pulmonary Function Over 20 Years," Journal of the American Medical Association 37 (2012).

<sup>[26]</sup> U.S. Department of Health and Human Services, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General — Executive Summary*, 2006.

[27] Conor Ferguson, et al., "Tests show bootleg marijuana vapes tainted with hydrogen cyanide," NBC News, September 27, 2019.

<sup>[28]</sup> Hilts, Phillip, "Is Nicotine Addictive? It Depends Whose Criteria You Use," *New York Times*, August 2, 1994.

<sup>[29]</sup> U.S. National Academy of Sciences, Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base* (Washington, D.C: National Academy Press, 1999).

<sup>[30]</sup> Aggarwal, Sunil, "'9 Percent of Those Who Use Cannabis Become Dependent' Is Based on Drug War Diagnostics and Bad Science," *The Huffington Post*, January 29, 2014.

<sup>[31]</sup> Amanda Reiman, "Cannabis as a substitute for alcohol and other drugs," *Harm Reduction Journal* 6 (2009).

<sup>[32]</sup> Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. *Treatment Episode Data Set (TEDS): 2005-2015. National Admissions to Substance Abuse Treatment Services*. (2017).

<sup>[33]</sup> W. Hall, "Is Cannabis Use Psychotogenic?," *Lancet* 367 (2006): 193–5.

<sup>[34]</sup> Frisher, et al., "Assessing the Impact of Cannabis Use on Trends in Diagnosed Schizophrenia in the United Kingdom from 1996 to 2005," *Schizophrenia Research* 113 (2009): 123–8.

<sup>[35]</sup> Advisory Council on the Misuse of Drugs, "Further Considerations on the Classification of Cannabis Under the Misuse of Drugs Act 1971," December 2005.

<sup>[36]</sup> T.R. Denson and M. Earleywine, "Decreased Depression in Marijuana Users," *Addictive Behaviors*, April 2006.

<sup>[37]</sup> Moore, et al., "Cannabis Use and Risk of Psychotic or Affective Mental Health Outcomes: A Systemic Review," *Lancet* 370 (2007): 319–28.

<sup>[38]</sup> Ferdinand, et al., "Cannabis Use Predicts Future Psychotic Symptoms, and Vice Versa," Addiction 100 (2005): 612-18.

<sup>[39]</sup> C.H. Aston, et al., "Cannabinoids in Bipolar Affective Disorder: A Review and Discussion of Their Therapeutic Potential," *Journal of Psychopharmacology*, Vol. 19, No. 3, 2005.

<sup>[40]</sup> Dobuzinskis, Alex, "Daily pot use not associated with brain shrinkage: Colorado study," *Reuters*, February 5, 2015.

<sup>[41]</sup> Mokrysc C., et al. "No relationship between moderate adolescent cannabis use, exam results or IQ, large study shows." *Annual Congress of the European College of Neuropsychopharmacology (ECNP)*. 2014.

<sup>[42]</sup> Stromberg, Joseph, "Long-Term Marijuana Use Could Have Zero Effect on IQ," SmithsonianMag.com, January 14, 2013.

<sup>[43]</sup> Fried, et al., "Current and former marijuana use: preliminary findings of a longitudinal study of

effects on IQ in young adults," Canadian Medical Association Journal 166 (2002): 887-91.

<sup>[44</sup>] Hughes, Dominic, "Young cannabis smokers run risk of lower IQ, report claims," BBC News, August 28, 2012.

<sup>[45]</sup> U.S. National Academy of Sciences, Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base* (Washington, D.C: National Academy Press, 1999).

<sup>[46]</sup> W. Hall, L. Degenhardt, and M. Lynskey, "The Health and Psychological Effects of Cannabis Use," Commonwealth of Australia, National Drug Strategy, Monograph Series No. 25, 2001.

<sup>[47]</sup> W. Hall, R. Room, and S. Bondy, WHO Project on Health Implications of Cannabis Use: A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine and Opiate Use, Geneva, Switzerland: World Health Organization, August 28, 1995.

<sup>[48]</sup> M. Earleywine, *Understanding Marijuana*, Oxford University Press, 2002.

<sup>[49]</sup> National Academies of Sciences, Engineering, and Medicine. "The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research." (2017).

<sup>[50]</sup> U.S. National Academy of Sciences, Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base* (Washington, D.C: National Academy Press, 1999).

<sup>[51]</sup> Thompson, Dennis, "Marijuana Study Counters 'Gateway' Theory," *HealthDay*, July 10, 2015.

<sup>[52]</sup> Kirby, T. and Barry, A. E. (2012), "Alcohol as a Gateway Drug: A Study of U.S. 12th Graders," Journal of School Health, 82: 371–379. doi: 10.1111/j.1746-1561.2012.00712.x

<sup>[53]</sup> Gallup Poll, July 19, 2017.

<sup>[54]</sup> U.S. Office of Applied Studies, *2015 National Survey on Drug Use and Health: Detailed Tables.* Accessed online August 28, 2017.

<sup>[55]</sup> Netherlands Institute of Mental Health and Addiction, *Cannabis Policy: An Update* (Utrecht: Trimbos Institute, 1997).

<sup>[56]</sup> Centers for Disease Control and Prevention. Alcohol Related Disease Impact (ARDI) application, 2013. *Available at http://apps.nccd.cdc.gov/DACH\_ARDI/Default.aspx* 

<sup>[57]</sup> Brownstein, Joseph. "Marijuana vs. Alcohol: Which Is Really Worse for Your Health?" *livescience*, January 21, 2014.

<sup>[58]</sup> University of Michigan/National Institute on Drug Abuse, *Monitoring the Future National Survey Results on Drug Use, 1975–2019.* (Fewer than 80% of 12th graders reported marijuana was "fairly easy" or "very easy" to obtain in each 2015, 2017, 2018, and 2019. The lowest figure since the survey began was reported in the most recent year, 2019: 78.4%.)

<sup>[59]</sup> Ibid.

<sup>[60]</sup> For data and sources, see

https://www.mpp.org/issues/legalization/teen-marijuana-use-does-not-increase/.

<sup>[61]</sup> Hasin, Deborah S., et al. "Medical marijuana laws and adolescent marijuana use in the USA from 1991 to 2014: results from annual, repeated cross-sectional surveys," *The Lancet Psychiatry*, Vol. 2, Issue 7, 601-608.

<sup>[62]</sup> Colorado Department of Public Health and Environment. "Monitoring Health Concerns Related to Marijuana in Colorado: 2016. Changes in Marijuana Use Patterns, Systematic Literature Review, and Possible Marijuana-Related Health Effects." (2017).

<sup>[63]</sup> For data and sources, *see* <u>https://www.mpp.org/issues/legalization/teen-marijuana-use-does-not-increase/</u>.

<sup>[64]</sup> Sifferlin, Alexandra. "High School Seniors Now Prefer Marijuana to Cigarettes." *Time*, December 15, 2015.

<sup>[65]</sup> Nelson, Steven. "Marijuana Is Harder Than Ever for Younger Teens to Find." U.S. News and World Report, December 13, 2016.

<sup>[66]</sup> Sam Petulla and Jon Schuppe, "Police Searches Drop Dramatically in States that Legalized Marijuana," *NBC News*, June 23, 2017.

<sup>[67]</sup> Hoaken, P. & Stewart, S. (2003). Drugs of abuse and the elicitation of human aggressive behavior. Addictive Behaviors 28, 1533-1554.

<sup>[68]</sup> U.S. Department of Health and Human Services, 10th Special Report to the U.S. Congress on Alcohol and Health, June 2000.

<sup>[69]</sup> U.S. Department of Justice Bureau of Justice Statistics, *Alcohol and Crime: Data from 2002 to 2008*. *Available at* <u>http://www.bjs.gov/content/acf/apt1\_crimes\_by\_type.cfm</u>

<sup>[70]</sup> Fals-Stewart, F., Golden, J., & Schumacher, J. (2003). Intimate partner violence and substance use: A longitudinal day-to-day examination. *Addictive Behaviors 28*, 1555-1574.

<sup>[71]</sup> Rape, Abuse and Incest National Network. *Drug Facilitated Sexual Violence*. Retrieved August 21, 2014, from <u>https://rainn.org/get-information/types-of-sexual-assault/drug-facilitated-assault</u>

<sup>[72]</sup> Gavrilova, E., et al. (2017). Is Legal Pot Crippling Mexican Drug Trafficking Organisations? The Effect of Medical Marijuana Laws on US Crime. *The Economic Journal*. Accessed from https://doi.org/10.1111/ecoj.12521

<sup>[73]</sup> Makin, D.A., et al. (2018). Marijuana Legalization and Crime Clearance Rates: Testing Proponent Assertions in Colorado and Washington State. *Police Quarterly*. Accessed from <u>https://doi.org/10.1177/1098611118786255</u>

<sup>[74]</sup> Freisthler, B., Kepple, N.J., Sims, R., & Martin, S.E., "Evaluating medical marijuana dispensary policies: Spatial methods for the study of environmentally-based interventions," *American Journal of Community Psychology* 51 (2013): 278–288.

<sup>[75]</sup> Chang, T., Jacobson, M., "Going to Pot?: The Impact of Dispensary Closures on Crime," March 2017.

<sup>[76]</sup> Hunt, P., et al. (2018). High on Crime? Exploring the Effects of Marijuana Dispensary Laws on Crime in California Counties. Institute of Labor Economics. Accessed from <u>http://ftp.iza.org/dp11567.pdf</u>

"" "Drug Involvement of Fatally Injured Drivers," NHTSA, *Traffic Safety Facts*, November 2010, DOT HS 811 415, 1.

<sup>[78]</sup> Rocky Mountain High Intensity Drug Trafficking Area, *The Legalization of Marijuana in Colorado: The Impact* (August 2013), 5.

Accessed from

https://www.codot.gov/safety/alcohol-and-impaired-driving/druggeddriving/drugged-driving#collapse1 1

<sup>[80]</sup> Ingold, John, "Denver medical marijuana advertising ban passes key vote," *Denver Post*, August 13, 2012.

<sup>[81]</sup> G. Thomas and C. Davis, "Cannabis, Tobacco, and Alcohol Use in Canada: Comparing Risks of Harm and Costs to Society," *Visions: British Columbia's Mental Health and Addictions Journal* 5 (2009).

<sup>[82]</sup> U.S. Department of Justice, Federal Bureau of Investigation, *Crime in the United States, 2018* <u>https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/persons-arrested</u>

<sup>[83]</sup> Jonathan P. Caulkins, Angela Hawken, Beau Kilmer, and Mark A.R. Kleiman, *Marijuana Legalization: What Everyone Needs to Know*, Oxford University Press: 2012.

<sup>[84]</sup> U.S. Department of Justice, *Memorandum for All United States Attorneys: Guidance Regarding Marijuana Enforcement*, August 29, 2013. *Available at* <u>http://www.justice.gov/opa/pr/2013/August/13-opa-974.html</u>