

# **Facts and Common Misconceptions**

#### **Too Harmful to Allow Adult Use**

• Every objective study on marijuana has concluded that it poses less harm than alcohol to the consumer and to society. Most adults in the U.S. recognize that adults should have the right to consume alcohol responsibly, and they support laws that regulate its sale and consumption. Adults should not be punished for using a less harmful substance. It is also irrational to prohibit adults from making the safer choice to use marijuana instead of alcohol, if that is what they prefer.

In 2008, research on marijuana's risk to health commissioned by nonpartisan British think tank the Beckley Foundation found: "The public health impact of contemporary patterns of cannabis use are modest by comparison with those of other illicit drugs (such as the opioids) or with alcohol. In the former case this reflects the absence of fatal overdose risk from cannabis. In the latter case, it reflects the much lower risks of death from cannabis than alcohol-impaired driving, fewer adverse effects on health, lower rates of regular use to intoxication for cannabis than for alcohol, and the lower rate of persistence of cannabis use into older adulthood."<sup>2</sup>

In 2007, a team of experts was formed to conduct an analysis on the relative harms of marijuana, alcohol, and other drugs for the esteemed British medical journal *The Lancet*. It concluded that marijuana posed far fewer health and safety risks than alcohol.<sup>3</sup> That same year, research commissioned by the Australian Institute of Health and Welfare arrived at the same conclusion. Specifically, it determined that alcohol was a significant contributor to death and responsible for 3.2% of the total burden of disease and injury in Australia, whereas marijuana was responsible for zero deaths and just 0.2% of the total burden of disease and

<sup>&</sup>lt;sup>1</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>2</sup> The Beckley Foundation, *Global Cannabis Commission Report* — *Cannabis Policy: Moving Beyond Stalemate* (Oxford, 2008).

<sup>&</sup>lt;sup>3</sup> Nutt, et al., "Development of a Rational Scale to Assess the Harms of Drugs of Potential Misuse," *Lancet* 369 (2007): 1047-53.

injury.4

In 2005, a University of Oxford meta-analysis on marijuana concluded that even long-term marijuana 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."<sup>5</sup>

In 2002, an exhaustive review of marijuana and health performed by a special Canadian Senate committee found that "scientific evidence overwhelmingly indicates that cannabis is substantially less harmful than alcohol and should be treated not as a criminal issue but as a social and public health issue."

In the mid 1990s, the World Health Organization commissioned a study on the health and societal consequences of marijuana compared to alcohol, nicotine, and opiates. It concluded: "Overall, most of these risks [associated with marijuana] are small to moderate in size. In aggregate, they are unlikely to produce public health problems comparable in scale to those currently produced by alcohol and tobacco. ... On existing patterns of use, cannabis poses a much less serious public health problem than is currently posed by alcohol and tobacco in Western societies."

On September 6, 1988, after hearing two years of testimony, Drug Enforcement Administration (DEA) chief administrative law judge Francis Young ruled: "In strict medical terms marijuana is far safer than many foods we commonly consume. For example, eating 10 raw potatoes can result in a toxic response. By comparison, it is physically impossible to eat enough marijuana to induce death. Marijuana, in its natural form, is one of the safest therapeutically active substances known to man."

# **Cancer and the Impact of Smoking on the Lungs**

• Extensive research has failed to find a link between marijuana and cancer. According to research published in the journal *Cancer*, *Causes*, and *Control*, marijuana 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. <sup>9</sup> This was confirmed in 1999

<sup>&</sup>lt;sup>4</sup> Australian Institute of Health and Welfare, *The Burden of Disease and Injury in Australia*, 2003 (Canberra: 2007).

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

<sup>&</sup>lt;sup>6</sup> Special Senate Committee on Illegal Drugs, *Final Report: Cannabis: Our Position for a Canadian Public Policy* (Ottawa, 2002).

<sup>&</sup>lt;sup>7</sup> Hall, Wayne, A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine, and Opiate Use (University of New South Wales: National Drug and Alcohol Research Centre, 1995).

<sup>&</sup>lt;sup>8</sup> "In the Matter of Marijuana Rescheduling Petition," DEA Docket No. 86–22, September 6, 1988.

<sup>&</sup>lt;sup>9</sup> Sidney, et al., "Marijuana Use and Cancer Incidence," Cancer, Causes, and Control 8 (1997): 722–28.

when the Institute of Medicine reported, "There is no conclusive evidence that marijuana causes cancer in humans, including cancers usually related to tobacco use." 10 It was also reaffirmed in 2006 by the largest case-controlled study ever conducted to investigate the respiratory effects of marijuana 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 marijuana smoking and an increased risk of developing lung cancer, even among subjects who reported smoking more than 22,000 joints over their lifetimes. 11,12

Surprisingly, the UCLA researchers found that people who smoked marijuana actually had *lower* incidences of cancer compared to non-users, leading them to the conclusion that marijuana might have a protective effect against lung cancer. Other studies have shown that marijuana can kill cancer cells and inhibit tumor growth. 13, 14

The effects of smoking marijuana pale in comparison to those associated with **smoking tobacco.** Opponents of marijuana policy reform often talk about the presence of carcinogens in marijuana smoke, oftentimes arguing that there are more cancer-causing chemicals in marijuana than in tobacco. Yet, there has never been a single documented case of a marijuana-only smoker developing lung cancer as a result of his or her marijuana use. Meanwhile, tobacco is responsible for 30% of all cancer deaths in the U.S. and 87% of lung cancer deaths.<sup>1</sup>

Inhaling any kind of smoke is unhealthy, but the effects of smoking marijuana 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 marijuana 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.<sup>16</sup>

Exposure to secondhand marijuana smoke — unlike tobacco smoke — has **little to no effect.** There is no evidence that exposure to secondhand marijuana smoke has any significant long-term health implications, whereas studies have shown secondhand tobacco smoke can. <sup>17</sup> In 1986, the National Institute on Drug

<sup>&</sup>lt;sup>10</sup> Institute of Medicine, Marijuana and Medicine: Assessing the Science Base (Washington, D.C.: National Academy Press, 1999).

<sup>&</sup>lt;sup>11</sup> Hashibe, et al., "Marijuana 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>&</sup>lt;sup>12</sup> Mark Kaufman, "Study Finds No Cancer-Marijuana Connection," Washington Post, May 26, 2006.

<sup>&</sup>lt;sup>13</sup> Sarfaraz, et al., "Cannabinoids for Cancer Treatment: Progress and Promise," Cancer Research 68 (2008): 339–42.

<sup>&</sup>lt;sup>14</sup> Manuel Guzman, "Cannabinoids; Potential Anticancer Agents," Nature Reviews Cancer 3 (2003): 745–5

<sup>&</sup>lt;sup>15</sup> American Cancer Society, *Cancer Facts & Figures 2013*, Atlanta: American Cancer Society (2013).

<sup>&</sup>lt;sup>16</sup> Pletcher, et al., "Association Between Marijuana Exposure and Pulmonary Function Over 20 Years," Journal of the American Medical Association 37 (2012).

17 U.S. Department of Health and Human Services, *The Health Consequences of Involuntary* 

Abuse (NIDA) conducted a study in which they placed people in an unventilated 8-by-7 room and burned a series of marijuana cigarettes. After being exposed to the smoke of four joints for one continuous hour for six consecutive days, most participants had no trace of marijuana 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.

• There are many ways to consume marijuana other than smoking, such as vaporizing, edible products, tinctures, and capsules. Vaporizers are simple devices that give consumers the fast action of inhaled cannabinoids without most of the unwanted irritants found in smoke. 18, 19 Essentially, vaporizing entails heating marijuana to the point that it releases the active chemicals in vapor form, so there is no smoke involved.

#### **Addiction and Treatment**

Marijuana 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, marijuana's addiction potential is no greater than caffeine's. <sup>20</sup> 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 marijuana users ever meet the clinical criteria for a diagnosis of "dependence" (based on DSM-III-R criteria), compared to 15% of alcohol users and 32% of tobacco users. <sup>21</sup>

It is worth noting that some research has concluded that allowing people to use marijuana 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

Exposure to Tobacco Smoke: A Report of the Surgeon General — Executive Summary, 2006.

<sup>&</sup>lt;sup>18</sup> Abrams, D.I., et al., "Vaporization as a Smokeless Cannabis Delivery System: A Pilot Study," *Clinical Pharmacology and Therapeutics*, April 11, 2007. [Epub ahead of print.]

<sup>&</sup>lt;sup>19</sup> Earleywine, M., Barnwell, S.S., "Decreased Respiratory Symptoms in Cannabis Users Who Vaporize," *Harm Reduction Journal* 4 (2007): 11.

<sup>&</sup>lt;sup>20</sup> Hilts, Phillip, "Is Nicotine Addictive? It Depends Whose Criteria You Use," *New York Times*, August 2, 1994.

<sup>&</sup>lt;sup>21</sup> U.S. National Academy of Sciences, Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base* (Washington, D.C: National Academy Press, 1999).

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."<sup>22</sup> This hypothesis will surely be explored as states continue to remove legal barriers to adult marijuana consumption.

• Most people in treatment for marijuana 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. Up to 70% of people in treatment for marijuana were ordered there by the criminal justice system, and according to 2006 statistics from the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA), more than one-third of those in treatment for marijuana hadn't used the drug in the 30 days prior to admission. <sup>23, 24</sup>

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

#### **Mental Health**

• The evidence shows no causal relationship between marijuana use and the onset of mental health conditions. If marijuana causes psychosis, rates of psychosis should rise if marijuana use goes up, but that has not happened. According to a report published by the prestigious British medical journal *The Lancet*, marijuana use skyrocketed in the 1960s and 1970s, but there was no significant increase in rates of psychosis. In 2009, researchers at the Keele University Medical School in Britain arrived at a similar conclusion: "[I]ncreases in population cannabis use have not been followed by increases in psychotic incidence."

In late 2005, the British government's scientific advisors on drug policy reviewed the evidence surrounding marijuana and mental illness and determined that the data do not demonstrate that marijuana causes depression, anxiety, or bipolar

<sup>&</sup>lt;sup>22</sup> Amanda Reiman, "Cannabis as a substitute for alcohol and other drugs," *Harm Reduction Journal* 6 (2009)

<sup>&</sup>lt;sup>23</sup> Jan Copeland and Jane Maxwell, "Cannabis Treatment Outcomes Among Legally Coerced and Non-coerced Adults," *BMC Public Health* 7 (2007).

<sup>&</sup>lt;sup>24</sup> U.S. Department of Health and Human Services: Substance Abuse and Mental Health Services Administration, *2006 Treatment Episode Data Set (TEDS)*.

<sup>&</sup>lt;sup>25</sup> W. Hall, "Is Cannabis Use Psychotogenic?" Lancet 367 (2006): 193–5.

<sup>&</sup>lt;sup>26</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.

disorder.<sup>27</sup> 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 marijuana users than in non-users.<sup>28</sup>

There have been a handful of studies that have identified a minor association between chronic marijuana use and increased symptoms of marijuana, but other studies have failed to find such a link. <sup>29, 30</sup> Confounding factors such as polydrug use, family history, and poverty make it difficult to study marijuana's potential impact on mental health.

Marijuana affects different people differently — like most substances, it can be problematic for some people and beneficial for others. The relationship between marijuana 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 marijuana 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 marijuana, 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.<sup>31</sup>

# Decline in IQ

There is no conclusive evidence that marijuana use results in lowered IQ. Opponents of marijuana policy reform frequently tout a 2012 New Zealand study published in the Proceedings of the National Academy of Sciences (PNAS) that linked minors' chronic marijuana use to a long-term reduction in IQ. But later that year, the same journal published an analysis that criticized the study for having flawed methodology. 32 In summary, it failed to account for the low

<sup>&</sup>lt;sup>27</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>&</sup>lt;sup>28</sup> T.R. Denson and M. Earleywine, "Decreased Depression in Marijuana Users," *Addictive Behaviors*, April 2006.

April 2006.

Moore, et al., "Cannabis Use and Risk of Psychotic or Affective Mental Health Outcomes: A Systemic

Review," Lancet 370 (2007): 319-28.

<sup>&</sup>lt;sup>30</sup> Ferdinand, et al., "Cannabis Use Predicts Future Psychotic Symptoms, and Vice Versa," Addiction 100

<sup>&</sup>lt;sup>31</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>32</sup> Stromberg, Joseph, "Long-Term Marijuana Use Could Have Zero Effect on IQ," SmithsonianMag.com, January 14, 2013.

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 marijuana use. A study published by the *Canadian Medical Association Journal* that included only middle-class participants found that IQ only decreased among current users, and even in heavy users, it rebounded after they stopped using.<sup>33</sup> It is 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 ... "<sup>34</sup>

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

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

## **Gateway Theory**

• The so-called "Gateway Theory" has been debunked. A White House-commissioned study by the Institute of Medicine in 1999 found that marijuana "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

<sup>&</sup>lt;sup>33</sup> Fried, et al., "Current and former marijuana use: preliminary findings of a longitudinal study of effects on IO in young adults," *Canadian Medical Association Journal* 166 (2002): 887–91.

IQ in young adults," *Canadian Medical Association Journal* 166 (2002): 887–91.

34 Hughes, Dominic, "Young cannabis smokers run risk of lower IQ, report claims," BBC News, August 28, 2012.

<sup>&</sup>lt;sup>35</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>&</sup>lt;sup>36</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>&</sup>lt;sup>37</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>&</sup>lt;sup>38</sup> M. Earleywine, *Understanding Marijuana*, Oxford University Press, 2002.

taken not to attribute cause to association."<sup>39</sup>

- If there is a "gateway drug," it is alcohol, which almost always precedes the **use of marijuana.** <sup>40</sup> But just as alcohol use does not cause people to use marijuana, using marijuana 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 marijuana, it comes as little surprise that people who use other illicit drugs previously tried alcohol and marijuana.
- The vast majority of people who have used marijuana never try any other drugs. About half of all Americans have used marijuana at some point in their lives. 41 Yet, only 3.6% have ever tried crack, only 1.6% have ever tried heroin, and fewer than 15% of Americans have ever tried cocaine, the second most popular illegal drug after marijuana. 42 If using marijuana caused people to use other drugs, there would be far more users of other drugs.
- By forcing marijuana 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.",<sup>43</sup>

# Adding Another Vice ("Alcohol and tobacco are bad enough ...")

- Making marijuana legal is not "adding another vice" it is providing a less harmful alternative to alcohol. In an ideal world, perhaps people would not want to use marijuana or alcohol. But in the real world, these two substances are popular and widely available. It's time to stop driving people to drink and allow them to make the safer choice to use marijuana instead, if that is what they prefer.
- There is no reason to believe that allowing adults to use marijuana will result in significant societal problems. The health-related costs associated with alcohol and tobacco use far exceed those for marijuana use. In fact, health-related costs

<sup>&</sup>lt;sup>39</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>&</sup>lt;sup>40</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

CNN/ORC International survey, January 6, 2014.

<sup>&</sup>lt;sup>42</sup> U.S. Office of Applied Studies, 2011 National Survey on Drug Use and Health: Detailed Tables. Accessed online January 11, 2013.

<sup>&</sup>lt;sup>43</sup> Netherlands Institute of Mental Health and Addiction, *Cannabis Policy: An Update* (Utrecht: Trimbos Institute, 1997).

for alcohol consumers are more than eight times greater than those for marijuana consumers, according to an assessment published in *British Columbia's Mental Health and Addictions Journal* in 2009. More specifically, the annual health-related cost of alcohol consumption is \$165 per user compared to just \$20 per user for marijuana. The costs for tobacco consumption are 40 times greater at \$800 per user. At Correspondingly, the Centers for Disease Control and Prevention (CDC) attribute about 40,000 deaths per year to alcohol use alone (not including accidents) and about 440,000 deaths per year to cigarette use. It attributes zero to marijuana. Clearly, allowing adults to use marijuana would not be on par with adding another alcohol or tobacco to the mix.

#### **Claiming Marijuana is Harmless**

- No drug is entirely harmless, including marijuana, 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 marijuana are much lower than those of alcohol and tobacco, and that those risks don't justify arresting and jailing responsible, adult marijuana users. (See other sections regarding relative harms of marijuana 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 marijuana is objectively less harmful than alcohol. Do you think people should be aware of the fact that marijuana poses less potential harm to the consumer than heroin or methamphetamine? Why wouldn't we want people to be aware of the fact that marijuana is less harmful than alcohol, too?

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

- Even the most potent marijuana is far less harmful than alcohol. The Centers for Disease Control and Prevention (CDC) attributes about 40,000 deaths per year in the U.S. to alcohol use alone, including hundreds from overdoses. It attributes zero to marijuana, and there has never been a fatal marijuana overdose in history. 47
- Like alcohol, there are more potent and less potent types of marijuana, and regulating marijuana 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

<sup>44</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>&</sup>lt;sup>45</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>&</sup>lt;sup>46</sup> Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses — United States, 2000–2004.

<sup>&</sup>lt;sup>47</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.

to drink less of it. By regulating marijuana like alcohol, we can ensure it is packaged and labeled properly. It would be crazy to sell beer and tequila side-byside without having them labeled so people know one is far stronger than the other.

If marijuana 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 marijuana legal, and they care just as much about protecting young people as those who wish to keep marijuana **illegal.** They simply believe regulation would be a more effective way of doing it.
- Marijuana prohibition has failed miserably at keeping marijuana out of the hands of teens. For decades, more than 80% of high school seniors have reported that marijuana is "very easy" or "fairly easy" to obtain. 48 If the goal of our current prohibition policy is to keep marijuana out of the hands of young people, yet more than 80% can get it easily, that is a sign that the policy has failed. It's time for a new approach.
- By forcing marijuana into an underground market, we are guaranteeing that sales will be entirely uncontrolled. Illegal marijuana 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 marijuana 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 marijuana use has generally remained steady over the past several years, whereas levels of alcohol and cigarette use have decreased. 49 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.

<sup>&</sup>lt;sup>48</sup> University of Michigan/National Institute on Drug Abuse, *Monitoring the Future National Survey* Results on Drug Use, 1975–2012.
<sup>49</sup> Ibid.

• Research has shown that reforming marijuana laws does not increase teen marijuana use. A 2012 study conducted by researchers at universities in Colorado, Montana, and Oregon found "no statistical evidence that legalization increases the probability of [teen] use," and noted that "the data often showed a negative relationship between legalization and [teen] marijuana use." State surveys of students in several states with medical marijuana laws have consistently reported declines in teen marijuana use since those laws were passed. 51

In 2012, an annual survey conducted by the U.S. Centers for Disease Control and Prevention (CDC) found that marijuana use by Colorado high school students has dropped since the state began regulating medical marijuana in 2010. <sup>52</sup> California has had a similar experience. According to the state-sponsored California Student Survey (CSS), marijuana use by California teens was on the rise until 1996 — the year California adopted its medical marijuana law — at which point it began dropping dramatically (by nearly half in some age groups). <sup>53</sup> As part of the 1997-1998 CSS, the State of California also commissioned an independent study examining the effects of its medical marijuana law, which concluded, "There is no evidence supporting that the passage of Proposition 215 increased marijuana use during this period." <sup>54</sup>

#### **Sending the Wrong Message to Teens**

- Marijuana is already widely available and widely used regulating it simply sends the messages that marijuana is for adults and should be handled responsibly. Our current marijuana 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 marijuana is not as dangerous as they have been led to believe, they are less likely to trust authorities' warnings about other more dangerous drugs.
- Marijuana prohibition laws send the inaccurate and potentially dangerous
  message that marijuana is more harmful than alcohol. By allowing adults to
  use alcohol and making it a crime for them to use marijuana, our laws are steering
  people toward using the substance that is much more likely to cause harm to them
  or those around them. Such absurd policies also foster disrespect for the law and

<sup>50</sup> Anderson, D. Mark, Hansen, Benjamin, and Rees, Daniel I., "Medical Marijuana Laws and Teen Marijuana Use," Institute for the Study of Labor, May 2012.

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<sup>&</sup>lt;sup>51</sup> O'Keefe, Karen, et al., "Marijuana Use by Young People: The Impact of State Medical Marijuana Laws," Marijuana Policy Project, June 2011.

<sup>&</sup>lt;sup>52</sup> Centers for Disease Control and Prevention, 1991–2011 High School Youth Risk Behavior Survey Data. Available at http://apps.nccd.cdc.gov/youthonline.

<sup>53 &</sup>quot;Report to Attorney General Bill Lockyer, 11th Biennial California Student Survey, Grades 7, 9 and 11," WestEd, 2006.

<sup>&</sup>lt;sup>54</sup> Skager, Rodney, Austin, Greg, and Wong, Mamie, "Marijuana Use and the Response to Proposition 215 Among California Youth, a Special Study From the California Student Substance Use Survey (Grades 7, 9, and 11), 1997–1998."

law enforcement officials. Our laws should reflect the facts, and it is a fact that marijuana is less harmful than alcohol.

#### 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 marijuana. Some people believe the legal age should be 18 because the individual is legally an adult and marijuana 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, marijuana 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.

#### **Crime and Violence**

• Research shows that marijuana — unlike alcohol — is not linked to violent or aggressive behavior. In fact, it often shows marijuana reduces the likelihood of engaging in acts of violence. A 2008 study published in the journal *Addictive Behaviors* concluded "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." 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. According to a report from the U.S. Department of Justice, that translates to nearly 5,000,000 alcohol-related violent crimes per year. By contrast, the government does not even track violent acts specifically related to marijuana use, as the use of marijuana 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 marijuana instead of alcohol, if that is what they prefer.

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

• Regulating marijuana will reduce crime, not increase it. In fact, virtually all the crime associated with marijuana is a direct result of its prohibition. Marijuana prohibition has relegated the sale of marijuana to criminal enterprises and,

<sup>&</sup>lt;sup>55</sup> P. Hoaken and S. Stewart, "Drugs of abuse and the elicitation of human aggressive behavior," *Addictive Behaviors* 28 (2003): 1533–54.

<sup>&</sup>lt;sup>56</sup> U.S. Department of Health and Human Services, *10th Special Report to the U.S. Congress on Alcohol and Health*, June 2000.

<sup>&</sup>lt;sup>57</sup> U.S. Department of Justice Bureau of Justice Statistics, *Alcohol and Crime: Data from 2002 to 2008*. Available at http://www.bjs.gov/content/acf/apt1\_crimes\_by\_type.cfm

increasingly, violent drug cartels. In doing so, it is exposing many consumers to more harmful people. And since marijuana is illegal, these individuals are unable to rely on law enforcement officials to step in when business-related disputes and incidents occur. All too often, this results in violence that affects not just marijuana dealers and consumers, but the broader communities surrounding them.

Marijuana is a significant source of income for individuals and groups involved in other criminal activities. For example, much of the violence escalating on the Mexican border revolves around the actions of Mexican drug cartels fighting over profits from marijuana sales. In fact, former U.S. Drug Czar John Walters told the Associated Press in 2008 that marijuana is the biggest source of income for these ruthless narcoterrorist organizations.<sup>58</sup> Whether they are large-scale drug cartels or small-town street gangs, the vast supply and demand surrounding marijuana will ensure they have a constant stream of profits to subsidize other illegal activities. Regulating marijuana like alcohol would eliminate this income source and, in turn, eliminate the violence and turf battles associated with the illegal marijuana market.

States' experiences with medical marijuana dispensaries have demonstrated that there is no significant link between regulated marijuana businesses and **crime** — in fact, it 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."59

In Colorado, a Denver Police Department analysis conducted in 2010 at the request of the city council found robbery and burglary rates at dispensaries were lower than area banks and liquor stores, and on par with those of pharmacies.<sup>60</sup> The Colorado Springs Police Department also found no correlation between medical marijuana businesses and increased crime. <sup>61</sup> That same year, the Los Angeles Police Department found similar results when it produced a report in response to claims that marijuana-related businesses were contributing to crime.<sup>62</sup>

## **Driving Under the Influence**

<sup>&</sup>lt;sup>58</sup> Stevenson, Mark, "Marijuana a big earner for Mexico gangs," *Associated Press*, February 21, 2008.

<sup>&</sup>lt;sup>59</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>&</sup>lt;sup>60</sup> Ingold, John, "Analysis: Denver pot shops' robbery rate lower than banks," *Denver Post*, January 27,

<sup>&</sup>lt;sup>61</sup> Rodgers, Jakob, "Marijuana shops not magnets for crime, police say," Colorado Springs Gazette, September 13, 2010.

<sup>&</sup>lt;sup>62</sup> Castro, Tony, "LAPD Chief: Pot clinics not plagued by crime," Los Angeles Daily News, January 17, 2010.

- It is currently illegal to drive while impaired by marijuana, and it will remain illegal after marijuana is regulated and legal for adults. Since law enforcement officials will no longer need to spend time arresting and prosecuting adults for possessing marijuana, they will have more time to spend enforcing laws against driving under the influence of alcohol, marijuana, and other substances.
- Statistics connecting marijuana use to traffic accidents are generally unreliable. For example, marijuana can remain detectable in a user's system for several days or even several weeks after he or she consumes marijuana, 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 marijuana 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. 63, 64
- Drivers can be tested for marijuana, and it is currently being done throughout the country. Typically, blood tests and urinalysis are used to determine whether a driver has consumed marijuana. Urinalysis can detect the presence of marijuana 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 marijuana.

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 marijuana 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 develop a more refined system for determining whether a driver is truly impaired by marijuana, but it is safe to say there is currently a way to do it. Any standards and penalties that are adopted should reflect existing science and must be based on demonstrating actual driving impairment.

<sup>64</sup> Rocky Mountain High Intensity Drug Trafficking Area, *The Legalization of Marijuana in Colorado: The Impact* (August 2013), 5.

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<sup>&</sup>lt;sup>63</sup> "Drug Involvement of Fatally Injured Drivers," NHTSA, *Traffic Safety Facts*, November 2010, DOT HS 811 415, 1.

#### **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 marijuana by employees on and off the job. That was the case with the laws adopted by voters in Colorado and Washington in 2012.
- There are laws in place that ensure employers have the ability to prohibit the use of marijuana by employees in "high-risk" or "safety-sensitive" positions. Don't be fooled by opponents who claim making marijuana legal for adults will result in surgeons, pilots, truck drivers, and electrical line workers performing their jobs under the influence of marijuana.
- Adults should not be punished for using marijuana 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 marijuana does not
  produce hangovers.

Because of how the body metabolizes marijuana, urinalysis can detect it in the body for up to several weeks. The effects of marijuana, 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 marijuana outside of the workplace. Since marijuana is detectable for much longer than other substances, testing employees for it could steer them toward drinking or using other less detectable drugs.

• Adopting a law that regulates marijuana 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. It does not require employers to prohibit the use of marijuana outside of the workplace.

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

- Why would we want marijuana to be sold by criminals instead of licensed businesses? Marijuana 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. Marijuana

businesses and business groups are pushing for strong and sensible regulations since they are needed in order to establish and maintain a legitimate marijuana industry. For example, Colorado's largest marijuana industry organization was a vocal supporter of a successful 2012 effort to ban outdoor advertising by marijuana businesses in Denver. <sup>65</sup> 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 marijuana. For example, tobacco companies are now notorious for having used additives to make their products more addictive. Such practices have already been banned under the laws approved by voters in Colorado and Washington to regulate marijuana like alcohol (businesses are also prohibited from mixing marijuana with tobacco or alcoholic beverages). 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 marijuana use. Overall, the health-related costs for tobacco consumers are 40 times greater than those for marijuana consumers. More specifically, the annual health-related costs of tobacco consumption are \$800 per user compared to just \$20 per user for marijuana.

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

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

# Marijuana 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. Marijuana prohibition has been just as big a failure, and it has caused far more harm than marijuana itself.

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<sup>&</sup>lt;sup>65</sup> Ingold, John, "Denver medical marijuana advertising ban passes key vote," *Denver Post*, August 13, 2012.

<sup>&</sup>lt;sup>66</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).

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

- About 750,000 Americans were arrested for marijuana-related offenses in 2012, and more than 87% were for possession alone. 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. 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 marijuana 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."
- Approximately 2,000 Alaskans are arrested annually for marijuana possession offenses. In 2010, 81% of all drug arrests in Alaska were for marijuana possession. This is the highest rate in the country. Of the 2,517 arrests made for drug offenses 2,028 of those were for marijuana possession. 69

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

• The proper balance between incarceration and unrestrained legalization is regulation. We need a marijuana policy that reflects the realities of marijuana and minimizes the harm surrounding it. Marijuana 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 marijuana illegal for adults is not a "third way," it's the same way we've been treating marijuana for decades.

#### **Federal Law**

• The U.S. Department of Justice (DOJ) made it exceptionally clear that states can regulate the cultivation and sale of marijuana for adult use. In an August 2013 memo, 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 marijuana sales to

<sup>&</sup>lt;sup>67</sup> U.S. Department of Justice, Federal Bureau of Investigation, *Crime in the United States*, 2012 (October 2013).

<sup>&</sup>lt;sup>68</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>69</sup> American Civil Liberties Union, The War on Marijuana in Black and White, 2013

minors and preventing interstate trafficking. In fact, the DOJ memo acknowledges that regulating marijuana might be more effective than prohibition when it comes to addressing those interests. In particular, it notes that the establishment of large for-profit marijuana businesses could be beneficial.<sup>70</sup>

• Twenty states and the District of Columbia have legalized medical marijuana, and many of them — including our nation's capital — are regulating the cultivation and sale of medical marijuana. Colorado and Washington have successfully implemented laws approved by voters in 2012 that regulate marijuana similarly to alcohol.

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

• International drug treaties allow considerable flexibility. In the U.S., 20 states and Washington, D.C. currently have medical marijuana laws, including many that allow for the regulated cultivation and sale of medical marijuana. Another good example is the Netherlands, which has a quasi-legal system of marijuana regulation in place right now. The U.S. has traditionally been the driving force behind these treaties, and we can renegotiate them anytime if it becomes necessary. It does not appear it will be.

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