The 2005 NORML Truth Report

Your Government Is Lying To You (Again) About Marijuana:

An Updated Refutation Of The Drug Czar's "Open Letter To America's Prosecutors"

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Introduction

In 2003, NORML published a comprehensive report entitled, "Your Government Is Lying To You (Again) About Marijuana: A Refutation Of The Drug Czar's 'Open Letter To America's Prosecutors.'"

NORML's report publicly addresses an 'open letter' to America's prosecutors (dated November 1, 2002) from the White House's Scott Burns, Deputy Director for State and Local Affairs for the Office of National Drug Control Policy (ONDCP). In the letter, Burns insisted, "Nationwide, no drug matches the threat posed by marijuana," and urged law enforcement officials to "aggressively prosecute" marijuana violators. The ONDCP's letter, filled with half-truths and outright lies regarding marijuana's alleged dangers, purposely misrepresented the available research in an attempt to justify federal and state policies that result in the arrest of more than 650,000 Americans annually on minor marijuana possession charges.

Since then, the White House's anti-marijuana propaganda campaign has continued to take on an increasingly alarmist and extremist tone, arguably crossing over any reasonable line of probity. The Bush Administration's latest rhetoric does not qualify as mere exaggeration; they are flat-out lying to the American public about marijuana.

As a result, NORML has updated and greatly expanded our 2003 report. Like our initial paper, the "2005 NORML Truth Report" relies on the federal government's own science, data, and statistics to rebut the Drug Czar's lies and propaganda.

NORML believes there is nothing to be gained by exaggerating claims of marijuana's harms. On the contrary, by overstating marijuana's potential risk, America's policy-makers and law enforcement community undermine their credibility and ability to effectively educate the public of the legitimate harms associated with more dangerous drugs. In addition, exaggerating the dangers associated with the responsible use of marijuana results in the needless arrest of hundreds of thousands of good, productive citizens each year in this country. We cannot remain silent and permit this taxpayer-funded propaganda to occur without a challenge, and we encourage all concerned citizens to refer to this report for the truth and science regarding marijuana and marijuana policy.

It's time to begin an honest public education campaign about the minimal risks presented by marijuana. Let's allow science, not rhetoric, to dictate America's public policy regarding marijuana. As you will see, the facts speak for themselves.

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Important and timely reports such as this are only made possible when concerned citizens become involved with NORML. For more information on joining NORML or making a donation, please visit: http://www.norml.org.

ALLEGATION #1
"There is a serious drug problem in this country."

TRUTH
America does have a serious drug problem and our public policy needs to better address this issue with health and science-based educational programs, and by providing more accessible treatment to those who are drug-dependent. *Unfortunately, the bulk of America's anti-drug efforts and priorities remain fixated on arresting and jailing drug consumers – particularly recreational marijuana smokers*.[1]

In this sense, there is a serious drug *enforcement* problem in this country. Despite the notion that America's drug war focuses primarily on targeting so-called hard drugs and hard drug dealers, data compiled by the FBI reports that *46 percent of all drug arrests are for marijuana*.[2]

In 2003, the last year for which statistics are available, law enforcement arrested an estimated 755,186 persons for marijuana violations.[3] *This total far exceeds the total number of arrests for the violent crimes of murder, manslaughter, forcible rape, robbery, and aggravated assault.*[4] Today, state and local taxpayers spend between $5.3 billion[5] and $7.7 billion[6] dollars annually arresting and prosecuting individuals for marijuana violations. The federal government spends an additional $4 billion per year on marijuana-related activities.[7] These monies would be far better spent targeting violent crime and protecting national security.

Since 1990, over **7.2 million Americans have been arrested on marijuana charges,**[8] more than the populations of Alaska, Delaware, the District of Columbia, Hawaii, Montana, North Dakota, South Dakota, Rhode Island, Vermont, and Wyoming combined.[9] Nearly 90 percent of these arrests were for simple possession, not cultivation or sale.[10]

Despite the fact that reported adult use of marijuana has remained relatively constant for

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1 *Washington Post.* "Marijuana Becomes Focus of Drug War." May 3, 2005.

2 Federal Bureau of Investigation. 2004. *Crime in America: FBI Uniform Crime Reports* 2003. Washington, DC: US Government Printing Office, p. 269 Table 4.1 & p. 270 Table 29.

3 Ibid.

4 Ibid. (Violent Index Crimes Total = 597,026)

5 J. Miron. June 2005. *The Budgetary Impacts of Marijuana Prohibition in the United States*. Cambridge, MA: Harvard. (available online at http://www.prohibitioncosts.org/mironreport.html)

6 J. Gettman. March 2005. *Crimes of Indiscretion: Marijuana Arrests in the United States*. Washington, DC: The NORML Foundation. (available online at http://www.norml.org/index.cfm?Group_ID=6476)

7 J. Miron. June 2005. *Federal Marijuana Policy: A Preliminary Analysis*. Washington, DC: Taxpayers for Common Sense. (available online at: http://www.taxpayer.net/drugreform/intro.htm)

8 R. King et al. May 2005. *The War on Marijuana*. Washington, DC: The Sentencing Project. (available online at www.sentencingproject.org/pdfs/waronmarijuana.pdf)

9 US Census Bureau. July 2004. State Population Estimates. (available online at: http://www.census.gov/popest/states/tables/NST-EST2004-01.pdf)

10 FBI, combined *Uniform Crime Reports*, 1991-2003.

the past decade, annual marijuana arrests have more than doubled since 1990.[11] Arrests for cocaine and heroin have declined sharply during much of this period,[12] indicating that ***increased enforcement of marijuana laws is being achieved at the expense of enforcing laws against the possession and trafficking of more dangerous drugs*.**

Rather than stay this course, federal officials ought to take a page from their more successful public health campaigns discouraging teen pregnancy, drunk driving, and adolescent tobacco smoking – all of which have been significantly reduced in recent years.[13] America did not achieve these results by banning the use of alcohol or tobacco products or by targeting and arresting adults who engage in these behaviors responsibly, but through honest, fact-based public education campaigns. There is no reason why these same common sense principles and strategies should not apply to marijuana and responsible adult marijuana use.

ALLEGATION #2
"Nationwide, no drug matches the threat posed by marijuana."

TRUTH
This statement is pure hyperbole. *By overstating marijuana's potential harms, America's policy-makers and law enforcement community undermine their credibility and ability to effectively educate the public of the legitimate harms associated with more dangerous drugs like heroin, crack cocaine, and methamphetamine*.

In fact, almost all drugs – including those that are legal – pose greater threats to individual health and/or society than does marijuana.[14] According to the Centers for Disease Control, approximately 46,000 people die each year from alcohol-induced deaths (not including motor vehicle fatalities where alcohol impairment was a contributing factor), such as overdose and cirrhosis.[15] Similarly, more than 440,000 premature deaths annually are attributed to tobacco smoking.[16] By comparison, marijuana is non-toxic and cannot cause death by overdose.[17] In a large-scale

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[11] Ibid.

[12] Bureau of Justice Statistics. 2005. *Drugs and Crime Facts*. Table: Number of Arrests by Drug Type, 1982-2003. US Department of Justice: Washington, DC. See also: NORML News Release. *Drug War Priorities Shift From Hard Drugs To Marijuana Arrest Figures Reveal*. July 8, 1999. (available online at: www.norml.org/index.cfm?Group_ID=4015)

[13] National Campaign to Prevent Teen Pregnancy, *Teen Pregnancy Rates in the United States, 1972-2000.* (available online at: http://www.teenpregnancy.org); Mothers Against Drunk Driving, General Statistics. (available online at: http://www.madd.org/stats/0,1056,1112,00.html); Partnership for a Drug Free America, *Partnership Attitudes Tracking Study (Teens)*, 2004, p.21.

[14] L. Iverson. 2005. Long-term effects of exposure to cannabis. *Current Opinion in Pharmacology* 5:69-72. See specifically: Abstract: "Overall, by comparison with other drugs used mainly for 'recreational' purposes, cannabis could be rated a relatively safe drug."

[15] Center for Disease Control, National Vital Statistics Report Vol. 53, 2005.

[16] Centers for Disease Control and Prevention. Smoking-attributable mortality and years of potential life lost — United States, 2005. (available online at: http://www.cdc.gov/tobacco/research_data/health_consequences/mortali.htm); Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, 1993, 42(33):645-8.

[17] Australian National Drug and Alcohol Research Centre. 1994. *The Health and Psychological*

population study of marijuana use and mortality published in the *American Journal of Public Health*, marijuana use, even long-term, "showed little if any effect … on non-AIDS mortality in men and on total mortality in women."[18]

After an exhaustive, federally commissioned study by the National Academy of Sciences' Institute of Medicine (IOM) in 1999 examining all of marijuana's potential health risks, authors concluded, "*Except for the harms associated with smoking, the adverse effects of marijuana use are within the range tolerated for other medications*."[19] (It should be noted that many risks associated with marijuana and smoking may be mitigated by alternative routes of administration such as vaporization.)[20] The IOM further added, "*There is no conclusive evidence that marijuana causes cancer in humans, including cancers usually related to tobacco use*."[21] A 2001 large-scale case-controlled study affirmed this finding, concluding that "the balance of evidence … does not favor the idea the marijuana as commonly used in the community is a major causal factor for head, neck, or lung cancer."[22] More recently, a 2004 study published in the journal *Cancer Research* concluded that cannabis use is not associated with an increased risk of developing oral cancer "regardless of how long, how much, or how often a person has used marijuana."[23]

Numerous studies and federally commissioned reports have endorsed marijuana's relative safety compared to other drugs, and recommended its decriminalization or legalization.[24] Virtually all of these studies have concluded that *the criminal "classification of cannabis is disproportionate in relation both to its inherent harmfulness, and to the harmfulness of other substances*."[25] Even a pair of editorials by the premiere

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Consequences of Cannabis Use. Canberra: Australian Government Publishing Service. See specifically: Chapter 9, Section 9.3.1 Acute Effects: "There are no recorded cases of fatalities attributable to cannabis, and the extrapolated lethal dose from animal studies cannot be achieved by recreational users." See also: National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base.* National Academy Press: Washington DC.

18 S. Sidney et al. 1997. Marijuana Use and Mortality. *American Journal of Public Health* 87: 1-4.

19 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 5.

20 D. Gieringer et al. 2004. Cannabis Vaporizer Combines Efficient Delivery of THC with Effective Suppression of Pyrolytic Compounds. *Journal of Cannabis Therapeutics.* 4: 7-27.

21 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 199.

22 D. Ford et al. 2001. Marijuana use is not associated with head, neck or lung cancer in adults younger than 55 years: Results of a case cohort study. In: National Institute on Drug Abuse (Eds) *Workshop on Clinical Consequences of Marijuana: Program Book*. National Institutes of Health: Rockville, MD: p. 10.

23 K. Rosenblat et al. 2004. Marijuana use and risk of oral squamous cell carcinoma. *Cancer Research* 64: 4049-4054.

24 Studies include but are not limited to: Canadian House of Commons Special Committee on the Non-Medical Use of Drugs. 2002. *Policy for the New Millennium: Working Together to Redefine Canada's Drug Strategy*. Ottawa; Canadian Special Senate Committee on Illegal Drugs. 2002. *Cannabis: Our Position for a Canadian Public Policy.* Ottawa; United Kingdom's Advisory Council on the Misuse of Drugs. 2002. *The Classification of Cannabis Under the Misuse of Drugs Act of 1971*. London; British House of Commons Home Affairs Committee. 2002. *Third Report*. London; Jamaican National Commission on Ganja. 2001. *A Report of the National Commission on Ganja*. Kingston; Australian National Drug and Alcohol Research Centre. 1994. *The Health and Psychological Consequences of Cannabis Use*; First Report of the National Commission on Marihuana and Drug Abuse. 1972. *Marihuana: A Signal of Misunderstanding*. Washington, DC: US Government Printing Office.

25 House of Commons Home Affairs Committee. 2002. *Third Report*. See specifically: Note 118.

British medical journal, *The Lancet*, acknowledge: "The smoking of cannabis, even long-term, is not harmful to health.[26] … It would be reasonable to judge cannabis as less of a threat … than alcohol or tobacco."[27] Indeed, *by far the greatest danger to health posed by the use of marijuana stems from a criminal arrest and/or conviction*.

ALLEGATION #3
"60 percent of teenagers in treatment have a primary marijuana diagnosis. This means that the addiction to marijuana by our youth exceeds their addiction rates for alcohol, cocaine, heroin, methamphetamine, ecstasy and all other drugs combined."

TRUTH
This statement is purposefully misleading. Although admissions to drug rehabilitation clinics among marijuana users have increased dramatically since the mid-1990s, *this rise in marijuana admissions is due to a proportional increase in the number of people arrested by law enforcement for marijuana violations and subsequently referred to drug treatment by the criminal justice system*.[28] **Primarily, these are young people arrested for minor possession offenses,**[29] **brought before a criminal judge (or drug court), and ordered to rehabilitation in lieu of jail or juvenile detention**. As such, this data is in no way indicative of whether the person referred to treatment is suffering from any symptoms of dependence associated with marijuana use; most individuals are ordered to attend supervised drug treatment simply to avoid jail time. In fact, *since 1995, the proportion of admissions from all sources other than the criminal justice system has actually declined*, according to the federal Drug and Alcohol Services Information System (DASIS).[30] Consequently, DASIS now reports that 58 percent of all marijuana admissions are through the criminal justice system.[31] Referrals from schools and health care/drug abuse care providers comprise another 15 percent of all admissions.[32] By comparison, only 38 percent of those admitted to treatment for alcohol and only 29 percent of those admitted to treatment for cocaine are referred by the criminal justice system.[33]

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26 Editorial: "Deglamorising Cannabis." *The Lancet,* Nov. 11, 1995. (346:8985).

27 Editorial: "Dangerous Habits." *The Lancet,* Nov.14, 1998. (352:9140).

28 The DASIS (Drug and Alcohol Services Information System) Report. March 29, 2002. *Treatment Referral Sources for Adolescent Marijuana Users*. US Office of Applied Studies, Substance Abuse and Mental Health Services Administration: Washington, DC.

29 74 percent of those arrested for marijuana possession in the United States are under 30 years of age. J. Gettman. March 2005. *Crimes of Indescretion: Marijuana Arrests in the United States.*

30 Ibid. Figure 1: Number of Adolescent Marijuana Admissions, by Referral Source: 1992-1999.

31 The DASIS (Drug and Alcohol Services Information System) Report. June 24, 2005. *Differences in Marijuana Admissions Based on Source of Referral: 2002.* Washington, DC: US Office of Applied Studies, Substance Abuse and Mental Health Services Administration. (available online at http://oas.samhsa.gov/2k5/MJreferrals/MJreferrals.htm).

32 Ibid.

33 Ibid

ALLEGATION #4
"We may never rid this country of every crack pipe or marijuana plant. However, research proves that we have made substantial success in reducing drug use in this country."

TRUTH
In fact, marijuana enforcement has had no discernable long-term impact on marijuana availability or use. According to the National Center on Addiction and Substance Abuse at Columbia University, *teenagers report that marijuana has surpassed tobacco and alcohol as the easiest drug to obtain*.[34] This result is hardly surprising, given that annual federal data compiled by the University of Michigan's Monitoring the Future project reports that an estimated 86 percent of 12th graders say that marijuana is "fairly easy" or "very easy to get."[35] This percentage has remained virtually unchanged since the mid-1970s[36] – despite remarkably increased marijuana penalties, enforcement, and the prevalence of anti-marijuana propaganda since that time.

The percentage of adolescents experimenting with marijuana has also held steady over the long-term. According to annual data compiled by Monitoring the Future, 47.3 percent of 12th graders reported having used marijuana in 1975.[37] *Despite billions of dollars spent on drug enforcement and drug education efforts (such as the federally funded DARE program) since that time, today's number (for the Class of 2004) is 49 percent*.[38]

In addition, according to data compiled by the federal National Household on Drug Abuse survey, an estimated 2.6 million Americans tried marijuana for the first time in the year 2003, up from 1.5 million in 1990 and 0.8 million in 1965.[39] *Today, nearly one out of every two American adults acknowledges they have used marijuana, up from fewer than one in three in 1983*.[40]

ALLEGATION #5
"The truth is that marijuana is not harmless."

TRUTH
This statement is correct; marijuana isn't harmless. In fact, no substance is, including

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[34] *Associated Press.* "Teens Say Buying Dope Is Easy." August 19, 2002.

[35] Monitoring the Future. 2004. *Annual Data From In-School Surveys of 8th, 10th, and 12th Grade Students.* Ann Arbor, Michigan. See specifically: Drug and Alcohol Press Release and Tables: Specific Drugs – Figure 2: Marijuana: Trends in Annual Use, Risk, Disapproval, and Availability for 8th, 10th, and 12th Graders. (available online at: monitoringthefuture.org/data/04data.html#2004data-drugs)

[36] Ibid.

[37] Ibid.

[38] Ibid. p.74.

[39] US Department of Health and Human Services, *2003 National Household Survey on Drug Abuse,* Washington: US Office of Applied Studies, Substance Abuse and Mental Health Services Administration. See table 4.1A: Trends in Initiation of Substance Use: Marijuana. (available online at: http://www.oas.samhsa.gov/nhsda/2k3tabs/Sect4peTabs1to60.htm#tab4.1a)

[40] Results from a *Time Magazine*/CNN telephone poll of 1,007 adult Americans age 18 or older, conducted October 23-24, 2002.

those that are legal. However, any risk presented by marijuana smoking falls within the ambit of choice we permit the individual in a free society.[41] According to federal statistics, approximately 80 million Americans self-identify as having used marijuana at some point in their lives,[42] and relatively few acknowledge having suffered significant deleterious health effects due to their use. America's public policies should reflect this reality, not deny it.

Marijuana's relative risk to the user and society does not support criminal prohibition or the continued arrest of more than 750,000 Americans on marijuana charges every year. As concluded by the Canadian House of Commons in their December 2002 report recommending marijuana decriminalization, "*The consequences of conviction for possession of a small amount of cannabis for personal use are disproportionate to the potential harm associated with the behavior*."[43]

ALLEGATION #6
"As a factor in emergency room visits, marijuana has risen 176 percent since 1994, and now surpasses heroin."

TRUTH
This statement is intentionally misleading as it wrongly suggests that marijuana use is a significant causal factor in an alarming number of emergency room visits. It is not.

Federal statistics gathered by the Drug Abuse Warning Network (DAWN) do indicate an increase in the number of people "mentioning" marijuana during hospital emergency room visits. (This increase is hardly unique to marijuana however, as the overall number of drug mentions has risen dramatically since the late 1980s – likely due to improved federal reporting procedures.[44]) However, ***a marijuana "mention" does not mean that marijuana caused the hospital visit*** or that it was a factor in leading to the ER episode, only that the patient said that he or she had used marijuana previously.[45]

For every emergency room visit related to drug use (so-called "drug abuse episodes"), hospital staff list up to five drugs the patient reports having used recently, regardless of whether or not their use of the drug caused the visit. The frequency with which any drug is mentioned in such visits is generally proportional to its frequency of use, irrespective of its inherent dangers.[46]

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41 "Penalties against drug use should not be more damaging to an individual than use of the drug itself. Nowhere is this more clear than in the laws against the possession of marijuana in private for personal use." Presidential address to Congress by Jimmy Carter. August 2, 1977.

42 US Department of Health and Human Services, *2003 National Household Survey on Drug Abuse,* Washington: US Office of Applied Studies, Substance Abuse and Mental Health Services Administration.

43 Canadian House of Commons Special Committee on the Non-Medical Use of Drugs. 2002. *Policy for the New Millennium: Working Together to Redefine Canada's Drug Strategy*. p. 131.

44 John P. Morgan and Lynn Zimmer. 1997. *Marijuana Myths, Marijuana Facts: A Review of the Scientific Evidence*. The Lindesmith Center: New York. p. 131.

45 C. Roberts. 1996. Data Quality of the Drug Abuse Warning Network. *American Journal of Drug and Alcohol Abuse* 22: 389-401.

46 DAWN has recently implemented a new system of data collection and reporting. In future DAWN reports, only drugs related to the ED visit are recorded. Previously any drug use reported by the patient, regardless

It is foolish for anyone – especially those in the administration's anti-drug office – to imply that marijuana is in any way potentially more dangerous to one's health than heroin. *Marijuana is mentioned to hospital staff more frequently than heroin, not because it's more dangerous, but simply because a far greater percentage of the population uses marijuana than uses heroin*. It is also worth noting that alcohol is by far the drug most frequently reported to DAWN, even though it is reported only when present in combination with another reportable drug. Moreover, marijuana is rarely mentioned independent of other drugs.[47]

ALLEGATION #7
"Smoked marijuana leads to changes in the brain similar to those caused by the use of cocaine and heroin."

TRUTH
Allegations that marijuana smoking alters brain function or has long-term effects on cognition are reckless and scientifically unfounded. Federally sponsored population studies conducted in Jamaica, Greece and Costa Rica found no significant differences in brain function between long-term smokers and non-users.[48] Similarly, a 1999 study of 1,300 volunteers published in *The American Journal of Epidemiology* reported "*no significant differences in cognitive decline between heavy users, light users, and nonusers of cannabis" over a 15-year period*.[49] More recently, a meta-analysis of neuropsychological studies of long-term marijuana smokers by the National Institute on Drug Abuse reaffirmed this conclusion.[50] In addition, a study published in the *Canadian Medical Association Journal* in April 2002 reported that even former heavy marijuana smokers experience no negative measurable effects on intelligence quotient.[51]

Most recently, researchers at Harvard Medical School performed magnetic resonance imaging on the brains of 22 long-term cannabis users (reporting a mean of 20,100 lifetime episodes of smoking) and 26 controls (subjects with no history of cannabis use).

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of relation to the visit, was recorded.

47 Drug Abuse Warning Network, *Detailed Emergency Department Tables From the Drug Abuse Warning Network, 2002,* Washington: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, 2005.

48 E. Russo et al. 2002. Chronic cannabis use in the Compassionate Investigational New Drug Program: an examination of benefits and adverse effects of legal clinical cannabis. *Journal of Cannabis Therapeutics* 2: 3-57. See Specifically: Previous Chronic Cannabis Use Studies.

49 C. Lyketsos et al. 1999. Cannabis use and cognitive decline in persons under 65 years of age. *American Journal of Epidemiology* 149: 794-800.

50 I. Grant et al. 2001. Long-Term neurocognitive consequences of marijuana: a meta-analytic study. In: National Institute on Drug Abuse (Eds) *Workshop on Clinical Consequences of Marijuana: Program Book*. National Institutes of Health: Rockville, MD. p. 12. See specifically: Abstract: "The 13 studies that met our criteria yielded no basis for concluding that long-term cannabis use is associated with generalized neurocognitive decline, with the possible exception of slight decrements in the area of learning new information."

51 P. Fried et al. 2002. *Current and former marijuana use: preliminary findings of a longitudinal study of effects on IQ in young adults*. Canadian Medical Association Journal 166: 887-891. See specifically: Abstract: "A negative effect was not observed among subjects who had previously been heavy users but were no longer using the substance. We conclude that marijuana does not have a long-term negative impact on global intelligence."

Imaging displayed "no significant differences" between heavy cannabis smokers compared to controls. "These findings are consistent with recent literature suggesting that cannabis use is not associated with structural changes within the brain as a whole or the hippocampus in particular," authors concluded.[52]

Claims specifically charging that marijuana leads to brain changes similar to those induced by heroin and cocaine are based solely on the results of a handful of animal studies that demonstrated that THC (delta-9-tetrahydrocannabinol, the main psychoactive ingredient in marijuana) can stimulate dopamine production under certain extreme conditions, and that the immediate cessation of THC (via the administration of a chemical blocking agent) will initiate some mild symptoms of withdrawal. These findings have little bearing on the human population because, according to the US Institute of Medicine, "The long half-life and slow elimination from the body of THC … prevent[s] substantial abstinence symptoms" in humans.[53] As a result, such symptoms have only been identified in rare, unique patient settings – limited to adolescents in treatment for substance abuse, or in clinical research trials where volunteers are administered marijuana or THC daily.[54]

ALLEGATION #8
"One recent study involving a roadside check of reckless drivers (not impaired by alcohol) showed that 45 percent tested positive for marijuana."

TRUTH
Though portrayed by politicians and police as a serious problem bordering on "epidemic," actual data is sparse concerning the prevalence of motorists driving under the influence of drugs, and more importantly, what role illicit drug use plays in traffic accidents.[55]

While it is well established that alcohol increases accident risk, evidence of marijuana's culpability in on-road driving accidents is less understood. Although marijuana intoxication has been shown to mildly impair psychomotor skills, this impairment does not appear to be severe or long lasting.[56] In driving simulator tests, this impairment is typically manifested by subjects decreasing their driving speed and requiring greater

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52 G. Tzilos et al. 2005. Lack of hippocampal volume change in long-term cannabis users. *American Journal of Addictions* 14: 64-72

53 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 58.

54 Ibid. p. 91.

55 J. Walsh et al. June 2004. *Developing Global Strategies for Identifying, Prosecuting, and Treating Drug-Impaired Drivers: Symposium Report,* Bethesda, MD: Walsh Group. (available online at http://www.walshgroup.org/DevelopingGlobalStrategies.htm)

56 Reviews include: David Hadorn. A review of cannabis and driving skills. In: Guy et al (Eds) *The Medicinal Uses of Cannabis and Cannabinoids*. London: Pharmaceutical Press. 2004: See specifically, "In conclusion, driving ability does not appear to be substantially impaired by cannabis." See also: Canadian Special Senate Committee on Illegal Drugs. *Cannabis: Our Position for a Canadian Public Policy*. 2002: See specifically Chapter 5: "Driving Under the Influence of Cannabis;" UK Department of Environment, Transport and the Regions (Road Safety Division). *Cannabis and Driving: A Review of the Literature and Commentary*. 2000; Allison Smiley. Marijuana: On-Road and Driving Simulator Studies. In: H. Kalant et al. (Eds) *The Health Effects of Cannabis*. Toronto: Center for Addiction and Mental Health. 1999: 173-191.

time to respond to emergency situations.[57]

This impairment ***does not*** appear to play a significant role in on-road traffic accidents when THC levels in a driver's blood are low and/or THC is not consumed in combination with alcohol. For example, a 1992 US National Highway Traffic Safety Administration review of fatally injured drivers found, "THC-only drivers [those with detectable levels of THC in their blood] had a responsibility rate below that of drug-free drivers."[58] A 1993 study conducted by the Institute of Human Psychopharmacology at the University of Maastrict (the Netherlands) evaluating cannabis' effects on actual driving performance found, "THC in single inhaled doses ... has significant, yet not dramatic, dose-related impairing effects on driving performance. ... THC's effects on road-tracking ... never exceeded alcohol's at BACs of .08% and were in no way unusual compared to many medicinal drugs."[59]

A 2002 review of seven separate crash culpability studies involving 7,934 drivers reported that "crash culpability studies [which attempt to correlate the responsibility of a driver for an accident to his or her consumption of a drug and the level of drug compound in his or her system] ***have failed to demonstrate that drivers with cannabinoids in the blood are significantly more likely than drug-free drivers to be culpable in road crashes."***[60]

More recently, a 2004 scientific review of driver impairment and motor vehicle crashes suggested that "recent cannabis use may increase crash risk, whereas, past use of cannabis as determined by the presence of THC-COOH (marijuana's inactive metabolite) in drivers does not."[61] An additional review by Drummer and colleagues further suggested that higher THC blood levels -- particularly those above 5 ng/ml, indicating that the cannabis use had likely been within the past 1-3 hours -- may be correlated with an elevated accident risk, noting, "The odds ratio for THC concentrations of 5 ng/ml or higher [are] similar to those drivers with a BAC of at least 0.15%."[62] However, a meta-analysis by a German research team of 87 experimental studies on cannabis did not find such elevated impairment, suggesting "that a THC level in blood serum of 5ng/ml ... produces the same overall reduction in test performance as does a BAC of 0.05%."[63]

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[57] Sexton et al. *The influence of cannabis on driving: A report prepared for the UK Department of the Environment, Transport and the Regions* (Road Safety Division). 2000; UK Department of Environment, Transport and the Regions (Road Safety Division). *Cannabis and Driving: A Review of the Literature and Commentary.* 2000; Allison Smiley. Marijuana: On-Road and Driving Simulator Studies.

[58] These findings are somewhat limited because only 4 percent of the drivers studied tested positive for THC in their blood. US Department of Transportation, National Highway Traffic Safety Administration. *The Incidence and Role of Drugs in Fatally Injured Drivers*: FINAL REPORT. October 1992.

[59] Hindrick Robbe. Marijuana's effects on actual driving performance. Institute for Human Psychopharmacology, University of Maastricht. 1993.

[60] Chesher et al. Cannabis and alcohol in motor vehicle accidents. In: Grotenhermen and Russo (Eds) *Cannabis and Cannabinoids: Pharmacology, Toxicology, and Therapeutic Potential*. New York: Haworth Press. 2002: 313-323.

[61] Ramaekers et al. Dose related risk of motor vehicle crashes after cannabis use. *Drug and Alcohol Dependence*. 2004: 109-119.

[62] These findings are somewhat limited because only 3 percent of the drug-positive drivers found to be responsible for their crash tested positive for THC in their blood. By comparison, 58 percent tested positive for alcohol. Drummer et al. The involvement of drugs in drivers killed in Australian road traffic crashes.

[63] Grotenhermen et al. 2005. *Developing Science-Based Per Se Limits for Driving Under the Influence of*

But, unlike with alcohol, the accident risk caused by cannabis -- particularly among those who are not acutely intoxicated -- appears limited because subjects under its influence are generally aware of their impairment and compensate to some extent, such as by slowing down and by focusing their attention when they know a response will be required.[64] This response is the opposite of that exhibited by drivers under the influence of alcohol, who tend to drive in a more risky manner proportional to their intoxication.[65]

In short, the quantitative role of cannabis consumption in on-road traffic accidents is, at this point, not well understood. However, marijuana does not appear to play a significant role in vehicle crashes, particularly when compared to alcohol[66]. As summarized by the Canadian Senate's exhaustive 2002 report: "Cannabis: Our Position for a Canadian Public Policy," "*Cannabis alone, particularly in low doses, has little effect on the skills involved in automobile driving*."[67]

ALLEGATION #9
"The truth is that marijuana is addictive. … Marijuana users have an addiction rate of about 10%, and of the 5.6 million drug users who are suffering from illegal drug dependence or abuse, 62 percent are dependent on or abusing marijuana."

TRUTH
Marijuana use is not marijuana abuse. According to the US Institute of Medicine's 1999 Report: "Marijuana and Medicine: Assessing the Science Base," "Millions of Americans have tried marijuana, but most are not regular users, … [and] few marijuana users become dependent on it."[68] In fact, *less than 10 percent of marijuana users ever exhibit symptoms of dependence* (as defined by the American Psychiatric Association's DSM-IV criteria.)[69] By comparison 15 percent of alcohol users, 17 percent of cocaine users, and a whopping 32 percent of cigarette smokers statistically exhibit symptoms of drug dependence.[70]

Marijuana is well recognized as lacking the so-called "dependence liability" of other substances. According to the IOM, "Experimental animals that are given the opportunity to self administer cannabinoids generally do not choose to do so, which has led to the

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Cannabis: Findings and Recommendations by an Expert Panel.

64 Ibid; See also Allison Smiley. Marijuana: On-Road and Driving Simulator Studies

65 Ibid; See also United Kingdom's Advisory Council on the Misuse of Drugs. *The Classification of Cannabis Under the Misuse of Drugs Act of 1971*. 2002: See specifically: Chapter 4, Section 4.3.5: "Cannabis differs from alcohol; ... it seems not to increase risk-taking behavior. This may explain why it appears to play a smaller role than alcohol in road traffic accidents."

66 P. Armentano. April 2005. *You Are Going Directly to Jail DUID Legislation: What It Means, Who's Behind It, and Strategies to Prevent It*. Washington, DC: NORML Foundation. (available online at: http://www.norml.org/index.cfm?Group_ID=6501)

67 Canadian Special Senate Committee on Illegal Drugs. 2002. *Cannabis: Our Position for a Canadian Public Policy*. p. 18.

68 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. pp. 92-96.

69 Ibid. p. 95, Table 3.4: Prevalence of Drug Use and Dependence in the General Population

70 Ibid.

conclusion that they are not reinforcing or rewarding."[71] Among humans, most marijuana users voluntarily cease their marijuana smoking by their late 20s or early 30s – often citing health or professional concerns and/or the decision to start a family.[72] Contrast this pattern with that of the typical tobacco smoker – many of whom begin as teens and continue smoking daily the rest of their lives.

That's not to say that some marijuana smokers do not become psychologically dependent on marijuana or find quitting difficult. But a comprehensive study released in 2002 by the Canadian Senate concluded that this dependence "is less severe and less frequent than dependence on other psychotropic substances, including alcohol and tobacco."[73] Observable withdrawal symptoms attributable to marijuana are also exceedingly rare. According to the Institute of Medicine, these symptoms are "mild and short lived"[74] compared to the profound physical withdrawal symptoms of other drugs, such as alcohol or heroin, and unlikely to persuade former smokers to re-initiate their marijuana use.[75]

ALLEGATION #10
"Average THC levels rose from less than 1% in the late 1970s to more than 7% in 2001, and sinsemilla potency increased from 6% to 13%, and now reach as high as 33%"

TRUTH
This statement is both inaccurate and misleading. No population en masse has ever smoked marijuana averaging less than one percent THC since such low potency marijuana would not induce euphoria. In many nations, including Canada and the European Union, marijuana of one percent THC or less is legally classified as an agricultural fiber crop, hemp.[76]

Although annual marijuana potency data compiled by the University of Mississippi's Research Institute of Pharmaceutical Sciences does show a slight increase in marijuana's strength through the years,[77] this increase is not nearly as dramatic as purported by the White House Office of National Drug Control Policy. *In addition,*

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71 Ibid. p. 57.

72 Ibid. p. 92. See also: Canadian Special Senate Committee on Illegal Drugs. 2002. *Cannabis: Our Position for a Canadian Public Policy*. p. 16.

73 Canadian House of Commons Special Committee on the Non-Medical Use of Drugs. 2002. *Policy for the New Millennium: Working Together to Redefine Canada's Drug Strategy*. p. 17.

74 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 6.

75 Ibid. pp. 83-101.

76 J. Rawson. 2005. Hemp as An Agricultural Commodity: CRS Report for Congress. Washington, DC: The Library of Congress.

77 In 1985, the average THC content of commercial-grade marijuana was 2.84%, and the average for high-grade sinsemilla was 7.17%. In 1995, the potency of commercial-grade marijuana averaged 3.73%, while the potency of sinsemilla in 1995 averaged 7.51%. In 2001, commercial-grade marijuana averaged 4.72% THC, and the potency of sinsemilla in 2001 averaged 9.03%. Source: University of Mississippi Potency Monitoring Project, *Quarterly Report #76, Nov. 9, 2001-Feb. 8, 2002*, Table 3, p. 8 (Oxford, MS: National Center for the Development of Natural Products, Research Institute of Pharmaceutical Sciences, 2002)

quantities of exceptionally strong strains of marijuana or sinsemilla (seedless marijuana) comprise only a small percentage of the overall marijuana market. The NIDA-sponsored Marijuana Potency Monitoring Project reports that less than 10 percent of DEA seized marijuana samples are above 15 percent. Less than 2 percent of marijuana seized from the domestic market contains more than 20% THC.[78] Data from Europe also refutes claims of increased cannabis potency, concluding "the potencies of resin and herbal cannabis … have shown little or no change, at least over the past ten years."[79] The drug czar's upper-level THC figures are clearly a scare tactic.

Moreover, it's worth noting that more potent marijuana is not necessarily more dangerous.[80] Marijuana poses no risk of fatal overdose, regardless of THC content, and since marijuana's greatest potential health hazard stems from the user's intake of carcinogenic smoke, it may be argued that higher potency marijuana may be slightly less harmful because it permits people to achieve desired psychoactive effects while inhaling less burning material.[81] In addition, studies indicate that marijuana smokers distinguish between high and low potency marijuana and moderate their use accordingly,[82] just as an alcohol consumer would drink fewer ounces of (high potency) bourbon than they would ounces of (low potency) beer.

ALLEGATION #11
"The truth is that marijuana and violence are linked."

TRUTH
Absolutely not. No credible research has shown marijuana use to play a causal factor in violence, aggression or delinquent behavior, dating back to former President Richard Nixon's "First Report of the National Commission on Marihuana and Drug Abuse" in 1972, which concluded, "In short, marihuana is not generally viewed by participants in the criminal justice community as a major contributing influence in the commission of delinquent or criminal acts."[83]

More recently, the Canadian Senate's 2002 "Discussion Paper on Cannabis" reaffirmed: "Cannabis use does not induce users to commit other forms of crime. Cannabis use does not increase aggressiveness or anti-social behavior."[84] In contrast, research has demonstrated that certain legal drugs, such as alcohol, do induce aggressive behavior.

"Cannabis differs from alcohol … in one major respect. It does not seem to increase risk-taking behavior," the British Advisory Council on the Misuse of Drugs concluded in

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78 Ibid. (n=379 of 4,603 above 15%, n=73 above 20%)

79 Editorial: "Cannabis potency in Europe." Addiction. 2005 (100: 884-886).

80 Ibid.

81 John P. Morgan and Lynn Zimmer. 1997. *Marijuana Myths, Marijuana Facts: A Review of the Scientific Evidence*. p. 139.

82 S. Heishman et al. 1989. Effects of tetrahydrocannabinol content on marijuana behavior, subjective reports, and performances. *Pharmacology, Biochemistry and Behavior* 34: 173-179.

83 First Report of the National Commission on Marihuana and Drug Abuse. 1972. *Marihuana: A Signal of Misunderstanding*. p. 75.

84 Canadian Special Senate Committee on Illegal Drugs. 2002. *Discussion Paper on Cannabis*. Ottawa. p.4.

its 2002 report recommending the depenalization of marijuana. "This means that cannabis rarely contributes to violence either to others or to oneself, whereas alcohol use is a major factor in deliberate self-harm, domestic accidents and violence."[85]

Most recently, a logistical retrogression analysis of approximately 900 trauma patients by SUNY-Buffalo's Department of Family Medicine found that use of cannabis is not independently associated with either violent or non-violent injuries requiring hospitalization.[86] Alcohol and cocaine use were associated with violence-related injuries, the study found. Accordingly, fewer than five percent of state and local law enforcement agencies identify marijuana as a drug that significantly contributes to violent crime in their areas.[87]

ALLEGATION #12
"The truth is that we aren't imprisoning individuals for just 'smoking a joint.' … Nationwide, the percentage of those in prison for marijuana possession as their most serious offense is less than half of one percent (0.46%), and those generally involved exceptional circumstances."

TRUTH
This statement is grossly inaccurate and misleading. Police have arrested more than six million Americans for marijuana violations since 1994, and now average more than 750,000 arrests per year.[88] The overwhelming majority of these arrests – 88 percent in 2003 – are for simple possession only, not marijuana cultivation or sale.[89]

While not all of those individuals arrested are eventually sentenced to long terms in jail, the fact remains that the repercussions of a marijuana arrest alone are significant – including (but not limited to):

probation and mandatory drug testing;
loss of driving privileges;
loss of federal college aid;
asset forfeiture;
revocation of professional driver's license;
loss of certain welfare benefits such as food stamps;
removal from public housing;
loss of child custody; and
loss of employment.

In other words, whether or not marijuana offenders ultimately serve time in jail, hundreds

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85 United Kingdom's Advisory Council on the Misuse of Drugs. 2002. *The Classification of Cannabis Under the Misuse of Drugs Act of 1971*. See specifically: Chapter 4, Section 4.3.6.

86 R. Blondell et al. 2005. Toxicology Screening Results: Injury Associations Among Hospitalized Trauma Patients. March 2005. *Journal of Trauma Injury, Infection, and Critical Care*, 58: 561-70.

87 National Drug Intelligence Center/US Department of Justice. 2004. *National Drug Threat Assessment, 2004*. Johnstown, PA. p. 37

88 See footnote #3.

89 Federal Bureau of Investigation, *Crime in America: FBI Uniform Crime Reports 2003* (Washington, DC: US Government Printing Office, 2004), Table 4.1: Arrest for Drug Abuse Violations.

of thousands of otherwise law-abiding citizens are having their lives needlessly destroyed each year for nothing more than smoking marijuana.

Specific totals on marijuana offenders behind bars are seldom available because federal statistics do not categorize drug offenders by drug type or drug offense. However, according to a 1997 Bureau of Justice Statistics survey of federal and state prisoners, *approximately 19 percent federal and 13 percent of state drug offenders are incarcerated for marijuana offenses*.[90] Based on those statistics, a 1999 paper published by the Federation of American Scientists estimated that nearly 60,000 inmates (roughly 1 in every 7 drug prisoners) were incarcerated for marijuana offenses at that time.[91] A more recent analysis performed by the Washington DC think-tank The Sentencing Project now estimates this total to exceed 68,000 marijuana prisoners.[92]

ALLEGATION #13
"The truth is that marijuana is a gateway drug. … People who used marijuana are 8 times more likely to have used cocaine, 15 times more likely to have used heroin, and 5 times more likely to develop a need for treatment of abuse or dependence on ANY drug."

TRUTH
Nonsense. According to the Canadian Senate's 2002 study: "Cannabis: Our Position for a Canadian Public Policy," "Cannabis itself is not a cause of other drug use."[93] This finding concurs with the conclusions of the US National Academy of Science's Institute of Medicine 1999 study, which stated that marijuana is not a "gateway drug to the extent that it is a cause or even that it is the most significant predictor of serious drug abuse."[94] (The IOM further noted that underage smoking and alcohol abuse typically precede marijuana use.[95]) Statistically, *for every 104 Americans who have tried marijuana, there is only one regular user of cocaine, and less than one user of heroin*, according to annual data compiled by the federal National Household Survey on Drug Abuse.[96]

For the overwhelmingly majority of smokers, pot is a 'terminus' rather than a gateway.[97]

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90 Bureau of Justice Statistics. 1999. *Substance Abuse and Treatment of State and Federal Prisoners, 1997*. US Department of Justice: Washington, DC.

91 C. Thomas. 1999. Marijuana arrests and incarceration in the United States. *FAS Drug Policy Analysis Bulletin* 7.

92 R. King et al. May 2005. *The War on Marijuana*. (available online at www.sentencingproject.org/pdfs/waronmarijuana.pdf)

93 Canadian Special Senate Committee on Illegal Drugs. 2002. *Cannabis: Our Position for a Canadian Public Policy*. p. 15.

94 National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 101.

95 Ibid. p. 6. "Because underage smoking and alcohol use typically precede marijuana use, marijuana is not the most common, and is rarely the first, 'gateway' to illegal drug use."

96 Federal Household data, as cited in John P. Morgan and Lynn Zimmer. 1997. *Marijuana Myths, Marijuana Facts: A Review of the Scientific Evidence*. p. 36, Figure 4-2: Very Few Marijuana Users Become Regular Users of Cocaine.

97 United Kingdom's Advisory Council on the Misuse of Drugs. 2002. *The Classification of Cannabis Under the Misuse of Drugs Act of 1971*. See specifically: Chapter 4, Section 4.6.2: "Even if the gateway theory is

ALLEGATION #14

"The truth is that marijuana legalization would be a nightmare in America. After Dutch coffee shops started selling marijuana in small quantities, use of the drug nearly tripled … between 1984 and 1996. While our nation's cocaine consumption has decreased by 80 percent over the past 15 years, Europe's has increased … and the Dutch government has started to reconsider its policy."

TRUTH

This statement is inaccurate and greatly distorts the well-documented European drug policy experience. Most European countries – including Belgium, Germany, Italy, Luxembourg, the Netherlands, Portugal, Spain, Switzerland – do not criminally arrest marijuana users.[98] Yet virtually every European nation, including the Netherlands, has drastically lower rates of marijuana and drug use among their adult and teen population compared to the United States.[99] *In fact, the national drug policy trends in Europe are currently moving toward more liberal marijuana laws, and away from US-styled drug policy*.[100] For example, Great Britain's Parliament formally downgraded marijuana in 2003 so that its possession is no longer an arrestable offense.[101]

As to the White House Office of National Drug Control Policy's specific claims regarding Dutch marijuana use, the truth is that *lifetime reported use of marijuana by Dutch citizens aged 12 and older is less than half of what is reported in America*.[102] In addition, Dutch policy-makers downgraded marijuana offenses in the mid-1970s; this makes it unlikely that any purported increase in Dutch marijuana use during the 1980s was directly attributable to the change in law. In fact, most experts agree that marijuana's illegality has little impact on marijuana use.[103] According to a 2001 study published in *The British Journal of Psychiatry*, "The Dutch experience, together with those of a few other countries with more modest [marijuana] policy changes, provides a moderately good empirical case that *removal of criminal prohibitions on cannabis*

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correct, it cannot be a particularly wide gate as the majority of cannabis users never move on to Class A [hard] drugs."

98 European Monitoring Centre for Drugs and Drug Addiction. 2002. *European Legal database on Drugs: Country Profiles*. (available online at: http://eldd.emcdda.eu.int/) See also: NORML. 2002. *European Drug Policy: 2002 Legislative Update*. Washington, DC. (available online at: www.norml.org/index.cfm?Group_ID=5446). A comprehensive breakdown of European marijuana and drug laws is available online from the NORML website at: www.norml.org/index.cfm?Group_ID=5445.)

99 European Monitoring Centre for Drugs and Drug Addiction. 2001. 2001 Annual Report on the State of the Drugs Problem in the European Union. Lisbon. See also: *New York Times*. "Study Finds Teenage Drug Use Higher in US Than in Europe." February 21, 2001.

100 European Monitoring Centre for Drugs and Drug Addiction. 2001. *Decriminalisation in Europe: Recent developments in legal approaches to drug use*. Lisbon. See also: *Washington Post*. "Europe Moves Drug War From Prisons to Clinics." May 2, 2002.

101 *United Press International*. "UK Govt Downgrades Cannabis." July 10, 2002.

102 R. MacCoun and Peter Reuter. 2001. Evaluating alternative cannabis regimes. *British Journal of Psychiatry* 178: 123-128.

103 NORML. 2001. *Marijuana Decriminalization and Its Impact on Use: A Review of the Scientific Evidence*. (available online at: http://www.norml.org/index.cfm?Group_ID=3383) See also: National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 104; E. Single et al. 2000. The Impact of Cannabis Decriminalisation in Australia and the United States. *Journal of Public Health Policy* 21: 157-186; E. Single. 1989. The Impact of Marijuana Decriminalization: An Update. *Journal of Public Health* 10: 456-466; L. Johnson et al. 1981. Marijuana Decriminalization: The Impact on Youth 1975-1980. *Monitoring the Future*, Occasional Paper Series, paper 13, Institute for Social Research, University of Michigan: Ann Arbor.

possession (decriminalization) will not increase the prevalence of marijuana or any other illicit drug; the argument for decriminalization is thus strong."[104]

ALLEGATION #15
"The truth is that marijuana is not a medicine, and no credible research suggest that it is."

TRUTH
This allegation is a lie, plain and simple. According to a 2001 national survey of US physicians conducted for the American Society of Addiction Medicine, nearly half of all doctors with an opinion on the subject support legalizing marijuana as a medicine.[105] Moreover, no less than 80 state and national health care organizations – including the American Public Health Association[106], The American Nurses Association,[107] and *The New England Journal of Medicine*[108] – support immediate, legal patient access to medical marijuana.[109] The medical community's support for medical marijuana is not based on "pseudo-science," but rather on the reports of thousands of patients and scores of scientific studies affirming marijuana's therapeutic value.

Modern research suggests that cannabis is a valuable aid in the treatment of a wide range of clinical applications. These include pain relief – particularly of neuropathic pain (pain from nerve damage) – nausea, spasticity, glaucoma, and movement disorders.[110] Marijuana is also a powerful appetite stimulant, specifically for patients suffering from HIV, the AIDS wasting syndrome, or dementia.[111] Emerging research suggests that marijuana's medicinal properties may protect the body against some types of malignant

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104 R. MacCoun and Peter Reuter. 2001. Evaluating alternative cannabis regimes. *British Journal of Psychiatry*.

105 *Reuters News Wire*. "Physicians divided on medical marijuana." April 23, 2001.

106 American Public Health Association Resolution #9513: "Access to Therapeutic Marijuana/Cannabis." The resolution states, in part, that the APHA "encourages research of the therapeutic properties of various cannabinoids and combinations of cannabinoids, and … urges the Administration and Congress to move expeditiously to make cannabis available as a legal medicine."

107 American Nurses Association June 2003 Resolution: "The ANA will… Support legislation to remove criminal penalties including arrest and imprisonment for bona fide patients and prescribers of therapeutic marijuana/cannabis."

108 Editorial: "Federal Foolishness and Marijuana." January 30, 1997. *New England Journal of Medicine* 336. See specifically: "Federal authorities should rescind their prohibition of the medical use of marijuana for seriously ill patients and allow physicians to decide which patients to treat. The government should change marijuana's status from that of a Schedule I drug … to that of a Schedule II drug … and regulate it accordingly."

109 The complete list of health organization endorsing legal access to medical marijuana is available online at: www.norml.org/index.cfm?Group_ID=3388.

110 Studies include but are not limited to: Canadian Special Senate Committee on Illegal Drugs. 2002. *Cannabis: Our Position for a Canadian Public Policy*; Jamaican National Commission on Ganja. 2001. *A Report of the National Commission on Ganja*; National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*; House of Lords Select Committee on Science and Technology. 1998. *Ninth Report. Cannabis: The Scientific and Medical Evidence*; National Academy of Sciences, Institute of Medicine. 1982. *Marijuana and Health*. National Academy Press: Washington, DC.

111 Ibid.

tumors[112] and are neuroprotective.[113]

Recent scientific reviews supporting marijuana's use as a therapeutic agent include a 1998 report by Britain's House of Lords Science and Technology Committee concluding: "The government should allow doctors to prescribe cannabis for medical use. ... Cannabis can be effective in some patients to relieve symptoms of multiple sclerosis, and against certain forms of pain. ... This evidence is enough to justify a change in the law."[114]

A 1999 review by the US Institute of Medicine (conducted at the request of the White House Office of National Drug Control Policy) added, "The accumulated data indicate a potential therapeutic value of cannabinoid drugs, particularly for symptoms such as pain relief, control of nausea and vomiting, and appetite stimulation,"[115] and recommended the US government allow immediate single patient clinical trials where upon patients could legally use inhaled marijuana medicinally in a controlled setting.[116] It should be noted that the IOM also reviewed the medical efficacy of the legal synthetic THC drug Marinol, which it found to have "poor bioavailability," slow onset, and adverse effects such as "anxiety, depersonalization, dizziness, euphoria, dysphoria, [and] somnolence" in approximately one-third of patients who use it.[117] As such, authors noted that many patients prefer whole smoked marijuana over this legal alternative.

An overview of marijuana's medical efficacy was conducted by the Canadian Senate's Special Committee on Illegal Drugs in 2002. The study advised Parliament to revise existing federal regulations legalizing the drug to qualified patients so that any "person affected by one of the following [medical conditions]: wasting syndrome; chemotherapy treatment; fibromyalgia; epilepsy; multiple sclerosis; accident-induced chronic pain; and some physical conditions including migraines and chronic headaches, whose physical state has been certified by a physician or an individual duly authorized by the competent medical association of the province or territory in question, *may choose to buy cannabis and its derivatives for therapeutic purposes*."[118] Today, Canadians can legally choose between using medical cannabis, as authorized by Health Canada, or the natural marijuana extract spray known as Sativex.[119]

Clearly, the policy issue of medical marijuana is a public health issue, and should not be held hostage by the war on drugs. Basic compassion and common sense demand that

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[112] M. Guzman. 2003. Cannabinoids: Potential anticancer agents. *Nature Reviews Cancer* 3: 745-755.

[113] K. Mishima et al. 2005. Cannabidiol prevents cerebral infarction. *Stroke* 5: 1077-1082; C. Hamelink et al. 2005. Comparison of cannabinol, antioxidants, and diuretics in reversing binge ethanol-induced neurotoxicity. *Pharmacology and Experimental Therapeutics*; National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base.*

[114] House of Lords Press Office. "Lords Say, Legalise Cannabis for Medical Use." November 11, 1998. London.

[115] National Academy of Sciences, Institute of Medicine. 1999. *Marijuana and Medicine: Assessing the Science Base*. p. 3.

[116] Ibid. p. 8.

[117] Ibid. p. 203.

[118] Ibid. See specifically: Proposals for Implementing the Regulation of Cannabis for Therapeutic and Recreational Purposes, p. 51.

[119] Canada News Wire. "Sativex: Novel cannabis derived treatment for MS pain now available in Canada by prescription." June 20, 2005.

our nation allows America’s seriously ill citizens to use whatever medication their physicians deem safe and effective to alleviate their pain and suffering, and the scientific record supports their use of therapeutic cannabis.