Testimony before the United States House Judiciary Committee, Subcommittee on Crime, Terrorism, and Homeland Security on "Marijuana Laws in America: Racial Justice and the Need for Reform"

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Thank you and good morning Chairwoman Bass, Chairman Nadler, Ranking Member Ratcliffe, Ranking Member Collins, and honorable members of the House Judiciary Committee.

My name is Dr. David Nathan. I'm originally from Philadelphia, graduated *magna cum laude* from Princeton University, received my medical degree from the University of Pennsylvania School of Medicine, and completed my residency at McLean Hospital of Harvard Medical School. I am a board-certified private-practice psychiatrist based in Princeton, New Jersey, a Clinical Associate Professor at Rutgers Robert Wood Johnson Medical School, and a Distinguished Fellow of the American Psychiatric Association. I serve as the Chief Medical Advisor for 4Front Ventures, a multistate medical cannabis company founded by fellow social justice advocates.

I speak to you today as the founder and board president of Doctors for Cannabis Regulation (or DFCR). DFCR is the leading national physicians' association dedicated to the legalization, taxation and – above all – the effective regulation of cannabis for adults. DFCR has hundreds of respected physician members in nearly every US state and territory. DFCR physicians include integrative medicine pioneer Andrew Weil, former Surgeon General Joycelyn Elders, and retired clinical director of SAMHSA, H. Westley Clark.

In 1937, the American Medical Association sent Dr. William Woodward to the House of Representatives to testify against the proposed prohibition of cannabis.[1] Refuting hyperbolic tabloid claims, he testified that cannabis is not highly addictive, does not cause violence in users, and does not cause fatal overdoses. He reasoned that cannabis should, therefore, be regulated rather than prohibited. Scientific evidence now confirms that Dr. Woodward was correct.[2,3,4]

[1] See Appendix B: "The Prescience of William C. Woodward." Doctors for Cannabis Regulation, 2015. https://dfcr.org/the-prescience-of-william-c-woodward/

[2] Joy, Janet E., et al. *Marijuana and Medicine: Assessing the Science Base*. Washington, DC: National Academy Press, 1999. http://medicalmarijuana.procon.org/sourcefiles/IOM_Report.pdf

[3] "Learn About Marijuana: Marijuana and Aggression." Alcohol and Drug Abuse Institute, University of Washington, 3/2015. http://learnaboutmarijuanawa.org/factsheets/aggression.htm

[4] Collen, Mark. "Prescribing cannabis for harm reduction." *Harm Reduct J.* 2012; 9:1. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3295721/

As physicians, we believe that cannabis should never have been made illegal for consenting adults. It is less harmful to adults than alcohol and tobacco, and the prohibition has done far more damage to our society than the adult use of cannabis itself.

However, cannabis is not harmless. People who are predisposed to psychotic disorders should avoid any cannabis use. Also, as with alcohol and other drugs, heavy cannabis use may adversely affect brain development in minors.[5] But cannabis prohibition for adults doesn't prevent underage use nor limit its availability. The government's own statistics show that 80-90% of eighteen-year-olds have consistently reported easy access to the drug since the 1970s.[6] For decades, preventive education has reduced the rates of alcohol and tobacco use by minors,[7] At the same time, underage cannabis use rose steadily despite its prohibition. In the past several years – as more states legalize cannabis for adults – the rate of underage cannabis use has stopped increasing.

Some have argued that if cannabis is legal for adults, then minors will think it's safe for them. But when cannabis is against the law for everyone, the government sends the message that cannabis is dangerous for everyone. Teenagers know that's not true. By creating a legal distinction between cannabis use by adults and minors, we teach our children a respect for scientific evidence – and the sanctity of the law. This may be why teen use has remained level or decreased in legalized states.[8,9]

Cannabis use can impair driving, as can most psychoactive drugs – including antidepressants, antipsychotics, sedatives, opioids, and even stimulants – especially among inexperienced users. But driving under the influence of cannabis and other drugs is already a criminal offense in every jurisdiction, including in legalized states. Numerous scientific studies exist showing only a weak correlation between marijuana-positive drivers and accident risk.[10] And in legalized states, studies show no adverse impact on traffic safety resulting from legalization.[11,12]

While a number of entities are trying to develop a blood, saliva, or breath test to assess impairment from cannabis intoxication, such a test is not presently available. The best method for assessing impaired driving is the use of specially trained police officers called Drug Recognition Experts (or DREs), and we support nationwide training of DREs in all jurisdictions.

There is a persistent misconception that cannabis is a "gateway" drug. While users of

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[5] Schweinsburg, et al. "The Influence of Marijuana Use on Neurocognitive Functioning in Adolescents." *Curr Drug Abuse Rev.* 2008 Jan; 1(1): 99–111. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2825218/

[6] Johnston, Lloyd. *Monitoring the Future: National Survey Results on Drug Use, 1975-2008: Volume II, College Students and Adults Ages 19-50.* Bethesda, MD: National Institute on Drug Abuse, 2009. http://monitoringthefuture.org/pubs/monographs/vol2_2008.pdf

[7] U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. http://www.cdc.gov/tobacco/data_statistics/sgr/50th-anniversary/index.htm

[8] Hasin et al. 2015. "Medical marijuana laws and adolescent marijuana use in the USA from 1991 to 2014: results from annual, repeated cross-sectional surveys." *Lancet Psychiatry* 2: 601-608. http://www.ncbi.nlm.nih.gov/pubmed/26303557

[9] Colorado Department of Public Safety. Impacts of marijuana legalization to Colorado. 2018. https://www.colorado.gov/pacific/publicsafety/news/colorado-division-criminal-justice-publishes-report-impacts-marijuana-legalization-colorado

[10] U.S. Department of Transportation, National Highway Traffic Safety Administration. *Drug and Alcohol Crash Risk.* February 2015. https://www.nhtsa.gov/behavioral-research/drug-and-alcohol-crash-risk-study

[11] Aydelotte et al., 2017. "Crash fatality rates after recreational marijuana legalization in Washington and Colorado." *American Journal of Public Health* 107: 1329-1331: https://www.ncbi.nlm.nih.gov/pubmed/28640679

[12] Hansen, Benjamin, et al. "Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities." National Bureau of Economic Research. Working Paper No. 24417, March 2018. https://www.nber.org/papers/w24417

hard drugs often try cannabis first, they're even more likely to try alcohol and tobacco. People generally try less dangerous drugs before trying more dangerous drugs, but the vast majority of those who try cannabis, alcohol and tobacco never go on to use harder drugs. The risk of drug misuse and addiction is now known to be largely due to pre-existing genetic and environmental risk factors, not the use of cannabis, alcohol, or other so-called "soft" drugs. As we learned in high school, correlation does not imply causation.

In 2019, even those who oppose legalization generally believe that cannabis should be decriminalized. But decriminalization is an inadequate substitute for legalization. In legalized states, government licensed retailers scrupulously check IDs and only sell cannabis products to adults. But where cannabis is merely decriminalized, the point-of-sale remains in the hands of drug dealers who sell cannabis – along with more dangerous drugs – to children.

Legalization opponents often say: "This isn't your parents' cannabis." Cannabis cultivation has, indeed, led to the development of more potent strains.[13] In states where cannabis is legal, labeling enables adult users to make informed decisions about their intake based on potency. Where cannabis is decriminalized, the government cannot regulate the production, testing or labeling of products, which means that users consume an untested and potentially adulterated product of unknown potency.

According to the Controlled Substances Act, a Schedule I drug must meet three specific criteria: "high potential for abuse," "no currently accepted medical use," and "lack of accepted safety." Cannabis does not meet any of these criteria. Cannabis does not share the high abuse potential associated with other Schedule I drugs or other legal recreational substances. According to a comprehensive review by the National Academy of Medicine, cannabis's dependence liability is similar to that of caffeine (9 percent), and it is far lower than dependence associated with alcohol (15 percent) and tobacco (32 percent).[14] Cannabis has a well-researched safety profile, and it possesses no documented risk of lethal overdose.[15] According to a United Nations Report, "There are no confirmed cases of human deaths from cannabis poisoning in the world medical literature."[16] FDA-approved trials[17] and a comprehensive 2017 review by the National Academies of Science, Engineering, and Medicine[18] support the safety and efficacy of cannabis in various patient populations. Today, most states and a majority of physicians recognize the therapeutic value and relative safety of cannabis.[19]

But cannabis shouldn't simply be rescheduled. Like alcohol, it should be removed from the Controlled Substances Act completely. Even if it had no medical value, a free society should not punish competent adults for the personal use of this non-lethal plant. We must stop using a sledgehammer to kill a weed.

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[13] Mehmedic, Z. et al. "Potency trends of Δ9-THC and other cannabinoids in confiscated cannabis preparations from 1993 to 2008." *J. Forensic Sci* 2010 Sep; 55(5):1209-1217. http://www.ncbi.nlm.nih.gov/pubmed/20487147.

[14] National Academies of Science, Engineering and Medicine. *Marijuana and Medicine: Assessing the Science Base*. Washington, DC: The National Academies Press, 1999. Page 95: Table 3.4: Prevalence of Drug Use and Dependence in the General Population. https://www.nap.edu/catalog/6376/marijuana-and-medicine-assessing-the-science-base

[15] Calabria B, et al. (2010) "Does cannabis use increase the risk of death? A systematic review of epidemiological evidence on adverse effects of cannabis use." *Drug Alcohol Rev* 2010 May;29(3):318-30. https://www.ncbi.nlm.nih.gov/pubmed/20565525

[16] Martin, B.R. and Hall, W. "The health effects of cannabis: key issues of policy relevance." United Nations Office on Drugs and Crime, December 1, 1999 https://www.unodc.org/unodc/en/data-and-analysis/bulletin/bulletin_1997-01-01_1_page005.html

[17] Grant, I., Atkinson, J. H., Gouaux, B., & Wilsey, B. (2012). "Medical marijuana: clearing away the smoke." *The Open Neurology Journal*, 6, 18–25. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

[18] National Academies of Sciences, Engineering, and Medicine. *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research*. Washington, DC: The National Academies Press, 2017. https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state

[19] Rappold, R. Scott. "Legalize Medical Marijuana, Doctors Say in Survey." WebMD, 2014. http://www.webmd.com/news/breaking-news/marijuana-on-main-street/20140225/webmd-marijuana-survey-web

My teenage children are growing up in a nation that does not regulate the cannabis industry. I want future generations of teenagers to grow up in an America that does.

Informed physicians may disagree about the specifics of good regulation, but we can no longer support a prohibition that has done so much damage to public health and personal liberty. Members of the House Judiciary Committee, please work with us to advance public health and protect our children through effective, evidence-based regulation of cannabis in the United States.

I thank you for your time.

Respectfully submitted,

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APPENDICES:

Appendix A: "Declaration of Principles." Doctors for Cannabis Regulation, April 18, 2016. https://dfcr.org/wp-content/uploads/Declaration-of-Principles.pdf

Appendix B: "The Prescience of William C. Woodward." Doctors for Cannabis Regulation, 2019. https://dfcr.org/the-prescience-of-william-c-woodward/

Appendix C: "Mythbusting the Gateway Theory." Doctors for Cannabis Regulation, 2018.

Appendix A: *A Declaration of Principles, by Doctors for Cannabis Regulation*

We, the Board of Directors, Honorary Board, and Founding Physician Members of Doctors for Cannabis Regulation, with firm reliance on science and reason, hereby endorse this Declaration of Principles.

We believe cannabis prohibition is harmful.

- There are more than 700,000 cannabis arrests in the United States annually,[1] encumbering our overburdened criminal justice system and draining law enforcement's already limited resources.
- Nationwide, African-Americans are nearly four times more likely than whites to be arrested for cannabis possession, despite similar usage rates between the two groups.[2]
- Low-income individuals face disproportionate consequences from cannabis arrests due to inability to pay fines, inadequate access to counsel, and potential loss of employment, housing, and student loans.[3,4] Poverty reduces access to healthcare and undermines public health.[5]
- Cannabis prohibition has led to the proliferation of dangerous synthetic cannabinoids.[6]
- Despite evidence that legal access to medical cannabis is correlated with a 25% reduction in opioid overdose deaths,[7] which currently number more than 28,000 per year in the U.S.,[8] prohibition prevents many patients from obtaining medical cannabis, even in states with medical cannabis laws.[9]

We believe cannabis prohibition is ineffective.

- More than 22,000,000 Americans currently use cannabis,[10] which represents 7% of the U.S. population.
- Cannabis prohibition has failed to prevent access by minors. Since the 1970s, 80-90% of American eighteen-year-olds have consistently reported that cannabis is "very easy" or "fairly easy" to obtain.[11]
- For decades, preventive education has reduced the rates of alcohol and tobacco use by minors, while underage cannabis use has risen.[12]

We believe cannabis prohibition is unnecessary.

- The vast majority of adults are unharmed by the responsible use of cannabis.[13]
- The health risks of cannabis misuse are less than those of alcohol and tobacco.[14,15]
- Evidence does not support a causal "gateway" relationship between the use of cannabis and the later use of more harmful drugs.[16,17]

We therefore support cannabis legalization for adults, preventive education of minors, and regulation of the industry.

- Legalization encourages honesty in patient-doctor communication about cannabis use.[18]
- Legalization facilitates research into the health risks and medical benefits of cannabis use.[19,20]
- Ending prohibition creates a legal distinction between underage and adult cannabis use. If we want our children to believe that cannabis can be harmful for them, then we must differentiate use by adults and minors.[21]
- Regulation benefits public health by enabling government oversight of the production, testing, labeling, distribution, and sale of cannabis.[22]
- Legalization takes the cannabis market out of the hands of illegal dealers, who do not pay taxes and sell cannabis—along with dangerous drugs—to minors as well as adults.[23]
- Tax revenues from cannabis can fund research, education, substance abuse treatment, and community reinvestment.[24]
- Legalization reduces the disproportionate impact of the criminal justice system on low-income and minority citizens.[25]

We call upon physicians and medical associations to promote cannabis regulation as an alternative to prohibition. Once supplied with the evidence, even physicians who vigorously oppose cannabis use may logically advocate its legalization for adults.

With confidence in the judgment of history, we commit our names to the support of this Declaration, published on the eighteenth day of April, 2016.

The Board of Directors, Honorary Board, and Founding Physician Members
DOCTORS FOR CANNABIS REGULATION

Doctors for Cannabis Regulation

APRIL 2016

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References for DFCR's "Declaration of Principles"

[1] Federal Bureau of Investigation. *Uniform Crime Report: 2014 Crime in the United States.* New York, NY: 2015. https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/persons-arrested/main

[2] American Civil Liberties Union. *The War on Marijuana in Black and White.* New York, NY: June 2013. p. 17. https://www.aclu.org/report/war-marijuana-black-and-white

[3] Laird, Lorelei. "Ex-offenders face tens of thousands of legal restrictions, bias and limits on their rights." *American Bar Association Journal.* June 1, 2013. http://www.abajournal.com/magazine/article/ex-offenders_face_tens_of_thousands_of_legal_restrictions

[4] Csete, Joanne, et al. "Public health and international drug policy." *The Lancet* special report. March 24, 2016. http://dx.doi.org/10.1016/S0140-6736(16)00619-X

[5] Mercado, Susan, et al. "Urban Poverty: An Urgent Public Health Issue." *Journal of Urban Health* 84. May 2007. pp. 7-15. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1891652/

[6] Fantegrossi, William E., et al. "Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ^9-THC: Mechanism underlying greater toxicity?" *Life Sciences* (97)1. February 27, 2014. pp. 45-54. http://www.sciencedirect.com/science/article/pii/S0024320513005523

[7] Bachhuber, Marcus A., et al. "Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999-2010." *JAMA Internal Medicine*, October 2014. http://archinte.jamanetwork.com/article.aspx?articleid=1898878

[8] Rudd, Rose A., et al. "Increases in Drug and Opioid Overdose Deaths — United States, 2000-2014." *Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention.* January 1, 2016. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s_cid=mm6450a3_w

[9] Pacula, Rosalie, et al. "Words Can Be Deceiving: A Review of Variation among Legally Effective Medical Marijuana Laws in the United States." *Journal of Drug Policy Analysis* 7(1), 2014. pp. 1-19. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314612/

[10] Center for Behavioral Health Statistics and Quality. *Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health.* Substance Abuse and Mental Health Services Administration, 2015. p. 5. http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf

[11] Johnston, Lloyd. *Monitoring the Future: National Survey Results on Drug Use, 1975-2008: Volume II: College Students and Adults Ages 19-50.* Bethesda, MD: National Institute on Drug Abuse, 2009. pp. 240-245. http://monitoringthefuture.org/pubs/monographs/vol2_2008.pdf

[12] Ingraham, Christopher. "Teen marijuana use falls as more states legalize." *Washington Post.* December 16, 2014. https://www.washingtonpost.com/news/wonk/wp/2014/12/16/teen-marijuana-use-falls-as-more-states-legalize/

[13] Alcohol and Drug Abuse Institute. "Learn About Marijuana: Adult Recreational Marijuana Consumers." University of Washington, March 2015. http://learnaboutmarijuanawa.org/consumers.htm

[14] Fish, Jefferson. "Acute toxicity of drugs versus regulatory status." *Drugs and Society: U.S. Public Policy.* New York: Rowman and Littlefield, 2006, Chapter 7. pp. 149-162. https://books.google.com/books/about/Drugs_and_Society.html?id=xpZhjBuIDkuwC

[15] Nutt, D, et al. "Development of a rational scale to assess the harm of drugs of potential misuse." *The Lancet* 369(9566), 2007. pp. 1047-1053. http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)60464-4/abstract

[16] Joy, Janet E., et al. *Marijuana and Medicine: Assessing the Science Base.* Washington, DC: National Academy Press, 1999. pp. 100-101. http://www.nap.edu/read/6376/chapter/5#100

[17] Levitan, Dave. "Is Marijuana Really a 'Gateway Drug'?" FactCheck: A Project of the Annenberg Public Policy Center. April 23, 2015. http://www.factcheck.org/2015/04/is-marijuana-really-a-gateway-drug/

[18] Mary Lynn Mathre R.N., M.S.N. (1988) A Survey on Disclosure of Marijuana Use to Health Care Professionals, Journal of Psychoactive Drugs, 20:1, 117-120. https://www.researchgate.net/publication/19762960_A_survey_on_disclosure_of_marijuana_use_to_health_care_professionals

[19] Coulter, Carol. "Is it time to legalise drugs?" *Irish Times.* July 12, 2008. http://www.irishtimes.com/news/is-it-time-to-legalise-drugs-1.944504

[20] Nederlandse associatie voor legale Cannabis en haar Stoffen als Medicatie. "The Dutch medicinal cannabis program." Retrieved March 20, 2016. http://www.nesm.nl/english/the-dutch-medicinal-cannabis-program

[21] Nelson, Steven. "Pot Use Among Colorado Teens Appears to Drop After Legalization." *U.S. News & World Report.* August 7, 2014. http://www.usnews.com/news/articles/2014/08/07/pot-use-among-colorado-teens-appears-to-drop-after-legalization

[22] California Medical Association. "Cannabis and the Regulatory Void: Background Paper and Recommendations." 2011. http://www.cmanet.org/files/pdf/news/cma-cannabis-tac-white-paper-101411.pdf

[23] Grillo, Ioan. "U.S. Legalization of Marijuana Has Hit Mexican Cartels' Cross-Border Trade." *Time.* April 8, 2015. http://time.com/3801889/us-legalization-marijuana-trade/

[24] Pabon, Rep. Dan, Chair. "Use of Recreational Marijuana Sales Tax Revenues Interim Study Committee." October 2014. https://www.colorado.gov/pacific/sites/default/files/14%20MarijuanaSummaryReport.pdf

[25] American Civil Liberties Union of Washington State. "Court Filings for Adult Marijuana Possession Plummet." March 19, 2014. https://aclu-wa.org/news/court-filings-adult-marijuana-possession-plummet

Appendix B: The Prescience of William C. Woodward

William Creighton Woodward, M.D., LL.M., LL.D., was a physician, attorney, educator and public health advocate with a distinguished career spanning fifty years. As the Legal Counsel for the American Medical Association, his medical-legal perspective on cannabis in the 1930s was wise and prophetic, although his testimony was ridiculed and ultimately rejected by our nation's lawmakers. Seventy-eight years later, our experience with marijuana prohibition has vindicated his courageous decision to stand up for science and reason. In the 1937 hearings for the Marihuana Tax Act, Dr. Woodward defended the AMA's position that cannabis should be regulated but not prohibited. In his lengthy testimony, he refuted the hyperbolic claims put forward by the proponents of marijuana prohibition, offering a prescient view of how our society should handle drug addiction in general, and marijuana in particular. There is much we can learn from this early, learned proponent of an evidence-based national cannabis policy, and extracts of his testimony are included below.

Brief Biography:

- 1867: Born in Washington, D.C.
- 1889: M.D. from Georgetown University School of Medicine
- 1894-1918: Health Officer, Washington, D.C.
- 1900: LL.D. from Georgetown University Law School
- 1918-1922: Commissioner of Public Health, Boston, Massachusetts
- 1922-1939: Legal Counsel for the American Medical Association
- 1949: Died in Washington, D.C.
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Academic Appointments:

- Professor of Medical Jurisprudence and State Medicine, Georgetown University School of Medicine
- Professor of Medical Jurisprudence, George Washington University, Department of Medicine
- Professor of Medical Jurisprudence, Howard University School of Medicine
- Instructor/Lecturer: School of Public Health, Harvard University and M.I.T.
- Faculty, Loyola University School of Law
- Professorial Lecturer in Medical Jurisprudence, Rush Medical College, University of Chicago

Selected Positions in Professional Societies:

- Director, Bureau of Legal Medicine and Legislation, American Medical Association
- Secretary, Board of Medical Supervisors of Washington, D.C.

- Founding member, Health Administration Section of the American Public Health Association
- President, American Public Health Association

Selected accomplishments:

- 1908: Annual Report as health officer called attention to disproportionately high mortality rates of African-Americans in Washington, D.C.
- 1914: As the Georgetown delegate to the Annual Meeting of the Association of American Medical Colleges, called for minimum college requirements for medical school applicants, as well as creation of a national central examining and licensing board for U.S. physicians
- 1914: Assisted in drafting of the Harrison Narcotics Tax Act that regulated opiates and cocaine
- 1918-1920: Served as Boston's Commissioner of Public Health during the 'Spanish flu' pandemic
- 1937: Testified at Marihuana Tax Act hearings as Legal Counsel for the AMA
- 1938: Defended AMA against charges of violating the Sherman Antitrust Act

Excerpts from Dr. Woodward's testimony to the Ways and Means Committee, U.S. House of Representatives, MAY 4, 1937: [from *Taxation of Marihuana, hearings before the House Committee on Ways and Means*, 75th Cong., lst Sess. (April 27-30 and May 4, 1937)]

"There is nothing in the medicinal use of Cannabis that has any relation to Cannabis addiction. I use the word 'Cannabis' in preference to the word 'marihuana', because Cannabis is the correct term for describing the plant and its products.... In other words, marihuana is not the correct term. It was the use of the term 'marihuana' rather than the use of the term 'Cannabis' or the use of the term 'Indian hemp' that was responsible, as you realized, probably, a day or two ago, for the failure of the dealers in Indian hempseed to connect up this bill with their business until rather late in the day. So, if you will permit me, I shall use the word 'Cannabis', and I should certainly suggest that if any legislation is enacted, the term used be 'Cannabis' and not the mongrel word 'marihuana.'

"I say the medicinal use of Cannabis has nothing to do with Cannabis or marihuana addiction. In all that you have heard here thus far, no mention has been made of any excessive use of the drug by any doctor or its excessive distribution by any pharmacist. And yet the burden of this bill is placed heavily on the doctors and pharmacists of the country; and I may say very heavily, most heavily, possibly of all, on the farmers of the country."

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"To say, however, as has been proposed here, that the use of the drug should be prevented by a prohibitive tax, loses sight of the fact that future investigation may show that there are substantial medical uses for Cannabis."

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"That there is a certain amount of narcotic addiction of an objectionable character no one will deny. The newspapers have called attention to it so prominently that there must be some grounds for these statements. It has surprised me, however, that the facts on which these statements have been based have not been brought before this committee by competent primary evidence. We are referred to newspaper publications concerning the prevalence of marihuana addiction. We are told that the use of marihuana causes crime.

"But yet no one has been produced from the Bureau of Prisons to show the number of prisoners who have been found addicted to the marihuana habit. An informed inquiry shows that the Bureau of Prisons has no evidence on that point.

"You have been told that school children are great users of marihuana cigarettes. No one has been summoned from the Children's Bureau to show the nature and extent of the habit, among children.

"Inquiry of the Children's Bureau shows that they have had no occasion to investigate it and know nothing particularly of it.

"Inquiry of the Office of Education— and they certainly should know something of the prevalence of the habit among the school children of the country, if there is a prevalent habit— indicates that they have had no occasion to investigate and know nothing of it.

"Moreover, there is in the Treasury Department itself, the Public Health Service, with its Division of Mental Hygiene. The Division of Mental Hygiene was, in the first place, the Division of Narcotics. It was converted into the Division of Mental Hygiene, I think, about 1930. That particular Bureau has control at the present time of the narcotics farms that were created about 1929 or 1930 and came into operation a few years later. No one has been summoned from that Bureau to give evidence on that point.

"Informal inquiry by me indicates that they have had no record of any marihuana or Cannabis addicts who have ever been committed to those farms."

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Rep. Robert L. Doughton (D, NC), Chairman: If you want to advise us on legislation, you ought to come here with some constructive proposals, rather than criticism, rather than trying to throw obstacles in the way of something that the Federal Government is trying to do. It has not only an unselfish motive in this, but they have a serious responsibility.

Dr. Woodward: We cannot understand yet, Mr. Chairman, why this bill should have been prepared in secret for two years without any intimation, even, to the profession, that it was being prepared.

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Rep. John D. Dingell (D, MI): We know that it is a habit that is spreading, particularly among youngsters. We learn that from the pages of the newspapers. You say that Michigan has a law regulating it. We have a State law, but we do not seem to be able to get anywhere with it, because, as I have said, the habit is growing. The number of victims is increasing each year.

Dr. Woodward: There is no evidence of that.

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Rep. John W. McCormack (D, MA): There is no question that the drug habit has been increasing rapidly in recent years.

Dr. Woodward: There is no evidence to show whether or not it has been.

Mr. McCormack: In your opinion, has it increased?

Dr. Woodward: I should say it has increased slightly. Newspaper exploitation of the habit has done more to increase it than anything else.

Mr. McCormack: It is likely to increase further unless some effort is made to suppress it.

Dr. Woodward: I do not know. The exploitation tempts young men and women to venture into the habit.

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"The Federal Government... would meet with the same difficulty that it met in prosecuting under the National Prohibition Act; the inadequacy of courts and the inadequacy of prosecuting attorneys, and I may say, the inadequacy of jails."

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"I think the proper preparation of an adequate course of instruction originating in the Treasury Department and distributed, it may be, through the Office of Education, would be an effective means of limiting dangers of narcotic addiction.

"The trouble is that we are looking on narcotic addiction solely as a vice. It is a vice, but like all vices, it is based on human nature. The use of narcotics, as is trite at the present time in the medical profession, represents an effort on the part of the individual to adjust himself to some difficult situation in his life. He will take one thing to stimulate him and another to quiet him. His will is weakened in proportion as he relies on drugs of that sort. And until we develop young men and young women who are able to suffer a little and exercise a certain amount of control, even though it may be inconvenient and unpleasant to do so, we are going to have a considerable amount of addiction to narcotics and addiction to other drugs. So that we must deal with narcotic addiction as something more than a police measure."

Appendix C: Mythbusting the Gateway Theory

Correlation vs. causation

We can trace the "gateway theory" to the 1930s, and even then public health experts knew it was based on anti-drug hysteria rather than science.[1] It's a destructive myth, and it hasn't aged well.

The gateway theory is the notion that cannabis use leads to use of more dangerous drugs. But for nearly 100 years, the public health community has confidently refuted these hyperbolic claims. Even in the darkest days of the drug war, there have always been physicians who spoke truth to propaganda: evidence does not support a causal link between cannabis and the later use of hard drugs.

People who use hard drugs often have tried cannabis earlier in their lives because of its wide availability and relative safety. They are even more likely to have tried alcohol and tobacco. For obvious reasons, people generally try less dangerous drugs before trying more dangerous drugs, which may be harder to obtain. But a simple observation reflects the reality: The vast majority of people who use cannabis, tobacco, and alcohol never go on to use more dangerous drugs.

Since the "reefer madness" of the 1930s, prohibitionists have made unfounded inferences from the unsurprising fact that people who use opioids have often consumed cannabis first. They're also more likely to have tried alcohol, tobacco, caffeine, and cupcakes first. The fallacious gateway theory nonetheless influenced the U.S. Federal Government when it banned cannabis in 1937.

Over eighty years later, the gateway theory remains unsupported by scientific research. The Institute of Medicine, the health division of the National Academy of Sciences, has concluded that cannabis "does not appear to be a gateway drug to the extent that it is the cause or even that it is the most significant predictor of serious drug abuse."[2]

Simply put, cannabis does not *cause* people to use hard drugs. It's like your high school science teacher often said: "Correlation does not equal causation."

Studies show that other factors—including genetic predisposition, environment, and poverty—are highly correlated with and can predict substance use disorders. The misuse of so-called soft drugs are, at most, indicators of some people's predisposition to misusing other drugs. This more enlightened view of cause and effect in drug use is known as "common liability theory."

The gateway theory is a misleading explanation of the complicated set of factors that actually lead to substance misuse. Its reductive interpretation distracts from an important public health discussion, and this malignant misunderstanding has resulted in the many harms of cannabis prohibition.

Especially given the severity of the United States opioid crisis, we need research and preventive education that focuses on the demonstrable links to the use of hard drugs, including genetics, poverty, and social environment.[3]

According to the Oxford Dictionary, a theory is a "supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing to be explained."[4] By this definition, we should more properly speak of the "gateway myth."

One way cannabis *can* causally lead to the use of hard drugs is through its prohibition.

Wherever the cannabis trade is illegal, it is sold to anyone—including minors. In a legalized environment, cannabis sales are separated from those of hard drugs, and minors are excluded from purchases.

The bottom line: Legalization makes communities safer and actually separates the sales of cannabis from other, far more harmful drugs. This is just one of many reasons why America needs legalization now.

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[1] Doctors for Cannabis Regulation. "*The Prescience of William C. Woodward.*" https://dfcr.org/the-prescience-of-william-c-woodward/

[2] Joy, Janet E., et al. Marijuana and Medicine: Assessing the Science Base. Washington, DC: National Academy Press, 1999, pp. 100-101. https://www.nap.edu/catalog/6376/marijuana-and-medicine-assessing-the-science-base

[3] Quenqua, Douglas. "A Comeback for the Gateway Drug Theory?" *The New York Times*, December 7, 2017. https://www.nytimes.com/2017/12/07/well/live/a-comeback-for-the-gateway-drug-theory.html?_r=0. See also: Valdez, Avelardo et. al. "Aggressive Crime, Alcohol and Drug Use, and Concentrated Poverty in 24 U.S. Urban Areas." *Am J Drug Alcohol Abuse*. 2007; 33(4): 595–603. http://www.tandfonline.com/doi/full/10.1080/00952990701407637

[4] "Theory." *Oxford Living Dictionaries*. https://en.oxforddictionaries.com/definition/theory