

Marijuana/Cannabis Legalization for Recreational Use Policy

The New Hampshire Medical Society:

1. Encourages increased research on the impact of cannabis legalization for recreational use on individual and public health and on justice-related issues in states that have already legalized recreational use of cannabis.
2. Encourages research aimed at further defining the biologic actions and interactions of active constituents in cannabis and the development of U.S. Food and Drug Administration (FDA) approved cannabinoid medications.
3. Will consider support for legalization of recreational use of cannabis by adults in New Hampshire, when:
 - The balance of net benefits and harms of legalization of cannabis and cannabis products – with differing concentrations and delivery mechanisms of active compounds (tetrahydrocannabinol (THC), cannabidiol (CBD), etc.) – is clearer based on scientific, epidemiologic, and other evidence, and is determined to be favorable or neutral in terms of impact on public health and safety; and
 - Regulatory systems are adequately and sustainably prepared to safely guide product approval and availability with adequate safeguards to protect from commercialization targeting use by children; and
 - An effective system for collection, analysis and dissemination of relevant public health and safety data is in place to determine the impact of legalization and to guide revisions in policy and regulation in support of public health and safety.
4. Supports the role of the New Hampshire Department of Health and Human Services in considering available scientific and clinical evidence to determine acceptable clinical indications for legal therapeutic use of cannabis in New Hampshire, including whether opioid use or other substance use disorder should or should not be a clinical indication for use; assuring qualified expert input into this process is critical.

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Facts on Marijuana/Cannabis

1. The content of tetrahydrocannabinol (THC or delta-9-THC, the major psychoactive or mind-altering component of cannabis) in marijuana has increased markedly over the past 50 years from a mean content of 3-5% in the 1970s, up 500% in potency with current mean concentrations of 18-23% in flowers, and up an average of 1800% in potency to 68-75% through extracted products in Washington State where cannabis is legal.¹
2. Marijuana/cannabis contains over 75 other potentially biologically active cannabinoids and other constituents, whose actions and interactions are not clearly defined.²
3. Teen Vaping Use: 25% of NH high school students reported using vaped products in the past 30 days, ranging from 17.6% of 9th graders to 32.4% of 12th graders.³ Among high school students who had used e-cigs before, over one-third reported vaping marijuana (THC).⁴ Multiple studies have found that youth who try vaping even once have a markedly increased risk of going on to smoke cigarettes and marijuana.^{5 6}
4. Vaping/smoking THC-rich resins extracted from the marijuana plant, referred to as “dabbing” is on the rise. These extracts come in various forms, such as: “hash oil or honey oil” – a gooey liquid; “wax or dabs” – soft solid with a texture like lip balm; and “shatter” – a hard, amber-colored solid. Marijuana extracts can deliver extremely large amounts of THC to the body, and their use has sent individuals to the emergency room.^{7 8}
5. No robust and consistent Federal or State systems for developing and overseeing regulatory standards for the cannabinoid content of cannabis and its products currently exist.⁹
6. Increased marijuana-associated morbidity presenting to Emergency Departments including rising poisonings among children, reduced perception of cannabis-related harm among children/adolescents, and rising rates of adult cannabis use,¹⁰ with indications of increased cannabis use among children ages 12-17 across the country.¹¹
7. Scientific literature reports potential adverse effects of marijuana use in pregnant women, including fetal growth restriction, low birth weight, preterm birth, small-for-gestational age, neonatal intensive care unit (NICU) admission, and stillbirth.^{12 13 14} Based on published animal research, there are also concerns that use of marijuana during pregnancy may negatively impact fetal brain development.^{15 16 17}
8. Research indicates a strong link between increased risk for acute psychotic symptoms in adolescents with monthly or more frequent marijuana use,^{18 19} as well as potential cardiovascular and pulmonary risks in vulnerable people.²⁰
9. While research indicates that between 9 and 30 percent of those who use marijuana may develop some degree of marijuana use disorder,²¹ adolescents who start smoking marijuana are four to seven times more likely to develop a marijuana use disorder.²²
10. Drivers who have ingested marijuana are slower to accurately perceive, make decisions and react to the traffic environment with studies showing that the crash risk doubles.²³
11. Chronic use of cannabis can be associated with a variety of harms, including increasing opioid use disorders and impairment in social, work, and intellectual performance.^{24 25}

References

- ¹ Jilomes and Zoorob, The Legal Content of Cannabis in Washington State, Scientific Reports, 2018
- ² Z. Fišar, "Phytocannabinoids and endocannabinoids," *Current Drug Abuse Reviews* 2, no. 1 (2009); Ethan B. Russo, "Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects," *British Journal of Pharmacology* 163, no. 7 (2011); F. Grotenhermen and K. Muller-Vahl, "The therapeutic potential of cannabis and cannabinoids," *Dtsch Arztebl Int* 109, no. 29-30 (2012).
- ³ New Hampshire 2017 High School Youth Risk Behavior Survey, Centers for Disease Control and Prevention. <https://www.cdc.gov/healthyyouth/data/yrbs/results.htm>
- ⁴ K.F. Trivers et al. Prevalence of cannabis use in electronic cigarettes among US youth. *JAMA Pediatrics*. Published online September 17, 2018. doi:10.1001/jamapediatrics.2018.1920.
- ⁵ "Vaping tied to higher risk that teens will try marijuana." <https://www.srnnews.com/vaping-tied-to-higher-risk-that-teens-will-try-marijuana/>
- ⁶ Govindarajan P, Spiller HA, Casavant MJ, et al. E-Cigarette and Liquid Nicotine Exposures Among Young Children. *Pediatrics*. 2018;141(5):e20173361
- ⁷ Bell C, Slim J, Flaten HK, Lindberg G, Arek W, Monte AA. Butane Hash Oil Burns Associated with Marijuana Liberalization in Colorado. *J Med Toxicol Off J Am Coll Med Toxicol*. 2015;11(4):422-425. doi:10.1007/s13181-015-0501-0.
- ⁸ Romanowski KS, Barsun A, Kwan P, et al. Butane Hash Oil Burns: A 7-Year Perspective on a Growing Problem. *J Burn Care Res Off Publ Am Burn Assoc*. 2017;38(1):e165-e171. doi:10.1097/BCR.0000000000000334.
- ⁹ Standards for Cannabis Testing Laboratories. Cannabis Safety Institute, 2014. <http://cannabissafetyinstitute.org/wp-content/uploads/2015/01/Standards-for-Cannabis-Testing-Laboratories.pdf>
- ¹⁰ Maxwell JC & Mendelson B, What do we know about the impact of the laws related to marijuana? *J Addict Med*. 2016 Feb; 10(1): 3–12
- ¹¹ 2017 NSDUH. National Study of Drug Use and Health.
- ¹² Gray, et al. Identifying Prenatal Cannabis Exposure and Effects of Concurrent Tobacco Exposure on Neonatal Growth. *Clinical Chemistry*. 2010; 56(9): 1442-1450.
- ¹³ Gunn, et al. Prenatal Exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. *BMJ Open*. 2016; 6:e009986.
- ¹⁴ Hayatbakhsh, et al. Birth Outcomes associated with cannabis use before and during pregnancy. *Pediatric Research*. 2012; 71 (2): 215-219.
- ¹⁵ Silva, et al. Prenatal tetrahydrocannabinol (THC) alters cognitive function and amphetamine response from weaning to adulthood in the rat. *Neurotoxicol and Teratol* 2012; 34(1): 63-71.
- ¹⁶ Trezza, et al. Effects of perinatal exposure to delta-9-tetrahydrocannabinol on the emotional reactivity of the offspring: a longitudinal behavioral study in Wistar rats. *Psychopharmacology (Berl)* 2008; 198(4): 529-537.
- ¹⁷ Campolongo, et al. Perinatal exposure to delta-9-tetrahydrocannabinol causes enduring cognitive deficits associated with alteration of cortical gene expression and neurotransmission in rats. *Addict Biol* 2007; 12(3-4): 485–495.
- ¹⁸ Levy S, Weitzman ER. Acute mental health symptoms in adolescent marijuana users. December, 2018. *JAMA Journal of Pediatrics*. doi:10.1001/jamapediatrics.2018.3811
- ¹⁹ Daniel T Malone, Matthew N Hill, and Tiziana Rubino. Adolescent cannabis use and psychosis: epidemiology and neurodevelopmental models. *British Journal of Pharmacology*. 2010 Jun; 160(3): 511–522. doi: 10.1111/j.1476-5381.2010.00721.x
- ²⁰ Volkow et al, Adverse Health Effects of Marijuana, *NEJM*, 2014
- ²¹ Hasin DS, Saha TD, Kerridge BT, et al. Prevalence of Marijuana Use Disorders in the United States Between 2001-2002 and 2012-2013. *JAMA Psychiatry*. 2015;72(12):1235-1242. doi:10.1001/jamapsychiatry.2015.1858.
- ²² Winters KC, Lee C-YS. Likelihood of developing an alcohol and cannabis use disorder during youth: association with recent use and age. *Drug Alcohol Depend*. 2008;92(1-3):239-247. doi:10.1016/j.drugalcdep.2007.08.005.
- ²³ Asbridge, Hayden & Cartwright, 2013. Acute cannabis consumption and motor vehicle collision risk.
- ²⁴ Karila L, et al. Long-Term Effects of Cannabis Use : A Review. *Curr Pharm Des*. 2013
- ²⁵ National Academies of Science, Engineering & Medicine, 2017 Cannabis Report