

Minnesota Findings for Local Regulation of Cannabis 7/20/22

The following sample findings and evidentiary support for local cannabis regulation were adapted from the Public Health Institute's [California Cannabis Retail and Marketing Model Ordinance](#). The findings were amended to reflect Minnesota specific data and findings where applicable.

These findings could be used to support a moratorium on sales of edible cannabinoid products or prohibition of sales. Additional findings could be added to support specific policy measures that may be pursued, such as a licensing structure, pricing provisions, and other public health focused provisions to reduce youth access and exposure to these products.

FINDINGS

The [City/County] hereby finds and declares as follows:

WHEREAS, based on the most reliable and up-to-date scientific evidence, the [City Council/County Board] finds that the rapid introduction of newly legalized edible cannabinoid products (“edibles”), presents a significant potential threat to the public health, safety, and welfare of the residents of [City/County], and particularly to youth; and

WHEREAS, [City/County] has the opportunity to be proactive and make decisions that will mitigate this threat and reduce exposure of young people to the products and to the marketing of these products;

WHEREAS, the United States Surgeon General has issued an advisory to alert the public to the known and potential harms to developing brains, posed by the increasing availability of highly potent marijuana in multiple, concentrated forms;¹ and the reasons for concerns with the increasing use of marijuana by pregnant women,² adolescents and youth;³ and

WHEREAS, the National Academies of Science, Engineering and Medicine note that the growing acceptance, accessibility, and use of cannabis and its derivatives have raised important public

¹ Office of the Surgeon General, U.S Surgeon General’s Advisory: Marijuana Use and the Developing Brain. Available at: <https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html> (last accessed June 11, 2020).

² Young-Wolff KC, Tucker L-Y, Alexeeff S, et al. Trends in Self-reported and Biochemically Tested Marijuana Use Among Pregnant Females in California From 2009-2016. *JAMA*. 2017;318(24):2490-2491. doi:10.1001/jama.2017.17225

³ Substance Abuse and Mental Health Services Administration (SAMHSA). *Comparison of 2017-2018 and 2018-2019 Population Percentages (50 States and the District of Columbia) | CBHSQ Data*. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2020. <https://www.samhsa.gov/data/>

health concerns, while the lack of aggregated knowledge of cannabis-related health effects has led to uncertainty about the impact of its use;⁴ and

WHEREAS, 32.8 million Americans ages 12 and older reported using cannabis in the past 30 days, 49.6 million reported use in the past year,⁵ and 90 percent of adult cannabis users in the United States said their primary use was recreational; and between 2002 and 2019, the percentage of past-month cannabis users in the U.S. population ages 12 and older increased steadily from 6.2 percent to 10.8 percent;^{6 7} and

WHEREAS, research has found cannabis use during adolescence, especially of products high in tetrahydrocannabinol (THC), or heavy use, is associated with suicide attempt,⁸ high school drop-out,⁹ higher likelihood of use of other illicit drugs and experiencing mental health impairment;¹⁰ and

WHEREAS the perception of risk from cannabis consumption has been falling steadily, dropping from 58.3% to 31.1% among youth nationally between 2000 and 2016,¹¹ and just 17.1% among 12–17-year-olds in Minnesota in 2018/19;¹² and

WHEREAS, reported past year vaping of marijuana by youth age 18-22 doubled between 2017 and 2018, with 20.8 percent of 12th graders, and 19.4% of 10th graders, reporting past year marijuana vaping;¹³ and

WHEREAS, in 2018 national marijuana use among full-time college students reached a 35-year high;¹⁴ and

⁴ The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research. The National Academies Press. <https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>. Accessed Oct. 12, 2020.

⁵ Substance Abuse and Mental Health Services Administration (SAMHSA). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2021. Retrieved from:

<https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFRRPDFWHTMLFiles2020/2020NSDUHFRR1PDFW102121.pdf>.

⁶ National Academies, *ibid*.

⁷ SAMHSA 2020, *ibid*.

⁸ Gobbi G, Atkin T, Zytynski T, et al. Association of cannabis use in adolescence and risk of depression, anxiety and suicidality in young adulthood: a systematic review and meta-analysis [published correction appears in *JAMA Psychiatry*. 2019 Apr 1;76(4):474]. *JAMA Psychiatry*. 2019; 76(4): 426-434.

⁹ Silins E, Horwood LJ, Patton GC, et al. Young adult sequelae of adolescent cannabis use: an integrative analysis. *Lancet Psychiatry*. 2014;1(4):286-293. doi:10.1016/S2215-0366(14)70307-4.

¹⁰ Freeman T. and Winstock A. 2015. Examining the profile of high-potency cannabis and its association with severity of cannabis dependence. *Psychological Medicine*, 45 (15), 3181-3189.

¹¹ Johnston LD, O'Malley PM, Miech RA, Bachman JG, Schulenberg JE. *Monitoring the Future National Survey Results on Drug Use, 1975-2016: Overview, Key Findings on Adolescent Drug Use*. Ann Arbor: Institute for Social Research, The University of Michigan; 2017.

¹² SAMHSA 2020, *ibid*.

¹³ NIDA. 2019, December 18. Vaping of marijuana on the rise among teens. Retrieved from <https://www.drugabuse.gov/news-events/news-releases/2019/12/vaping-of-marijuana-on-the-rise-among-teens> on 2020, October 26.

¹⁴ Shulenberg, J. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Miech, R. A. & Patrick, M. E. (2019). *Monitoring the Future national survey results on drug use, 1975–2018: Volume II, College students and adults ages 19–60*. Ann Arbor: Institute for Social Research, The University of Michigan. Available at <http://monitoringthefuture.org/pubs.html#monographs>.

WHEREAS, nationally, there have been significant increases in cannabis use among those age 12 and older, but especially among those age 18-22,¹⁵ and cannabis use rates by youth age 18-22 are higher in states with legal adult-use cannabis than in non-legal states;¹⁶ and

WHEREAS use during pregnancy has risen substantially between 2000 and 2014, increasing the risk of low birth weight;¹⁷ and

WHEREAS, in 2016, 15.7% of 11th grade students in Minnesota reported that they had used marijuana in the past 30 days, a number far exceeding that for cigarette smoking (8.4%);¹⁸ and

WHEREAS, in 2017, the National Academies of Sciences, Engineering and Medicine (NASEM) reviewed the available scientific evidence on the health effects of cannabis and cannabis-derived products, and while noting substantial evidence of therapeutic effectiveness of medicinal cannabis for a limited number of indications, noted evidence of association of cannabis use with harm in a wide range of areas.¹⁹ The NASEM study found “substantial evidence”²⁰ to support the following conclusions:

- (a) Initiation of use at an earlier age or more frequent use is a risk factor for the development of problem cannabis use;
- (b) Maternal cannabis smoking during pregnancy is associated with low birth weight in offspring;
- (c) Cannabis use is associated with increased risk of motor vehicle crashes;
- (d) Cannabis use increases the risk of development of schizophrenia and other psychoses, with the highest risk among the most frequent users;
- (e) Long-term cannabis smoking is associated with worse respiratory symptoms and more frequent chronic bronchitis episodes; and
- (f) Increases in cannabis use frequency are associated with developing problem cannabis use.

The NASEM study found less conclusive, but still worrisome, emerging evidence for a wide range of other harms, including impaired academic achievement and educational outcomes,

¹⁵ National Academies, *Ibid*.

¹⁶ Bae, H., and Kerr, D. C. R. (2020) Marijuana use trends among college students in states with and without legalization of recreational use: initial and longer-term changes from 2008 to 2018. *Addiction*, 115: 1115-1124. <https://doi.org/10.1111/add.14939>.

¹⁷ Brown QL, Sarvet AL, Shmulewitz D, Martins SS, Wall MM, Hasin DS. Trends in Marijuana Use Among Pregnant and Nonpregnant Reproductive-Aged Women, 2002-2014. *JAMA*. 2017;317(2):207-209. doi:10.1001/jama.2016.17383.

¹⁸ Minnesota Department of Human Services. Youth Alcohol, Drugs and Tobacco Use: Results of the 2016 Minnesota Student Survey. 2017. https://mn.gov/dhs/assets/minnesota-student-survey-2-3-2017_tcm1053-283266.pdf.

¹⁹ National Academies, *Ibid*.

²⁰ The Academy defined Substantial Evidence as follows: “There is strong evidence to support or refute a statistical association between cannabis or cannabinoid use and the health endpoint of interest.”

development of substance use disorders, suicide completion, high blood pressure and increased unemployment, among others; and

WHEREAS, the findings of the NASEM study and other research lead us to conclude that legalization of adult-use cannabis should be carried out cautiously, in such a way as to prevent undue exposure of youth and expansion of problem use; that unfettered expansion and diversification of products and of marketing are not prudent; and that, like tobacco and alcohol, cannabis use may pose significant risks to public health, especially when initiated early in life; and

WHEREAS, Minnesota has recognized the danger of cannabis use among youth by prohibiting the sale of edibles to those under age 21 (Minn. Stat. § 151.72, subd. 3(c)) and by requiring that edibles be packaged without appeal to children and in child-resistant containers (Minn. Stat. § 151.72, subd. 5a(b)); and

WHEREAS, many years of alcohol and tobacco retailing, which are likely to have parallels in cannabis retailing, have demonstrated that Minnesota retailers continue to sell alcohol and tobacco to underage consumers, as evidenced by the following:

- Among minors nationwide who smoked cigarettes in 2011, 14% percent had obtained their own cigarettes by buying them in a store or gas station;²¹ and 14.5% of minors nationwide who used alcohol in the past 30 days in 2012 had obtained the alcohol themselves in an alcohol retail outlet;²² and

WHEREAS, the density of tobacco retailers, particularly in neighborhoods surrounding schools, has been associated with increased youth smoking rates;²³ multiple studies have found that the density of tobacco retailers near schools was positively associated with the prevalence of students reporting smoking;²⁴ and

WHEREAS, a recent study found that higher dispensary density in states with legal cannabis laws was associated with higher likelihood of youth ages 14-18 experimenting with cannabis vaping and edibles;²⁵ and

²¹ Centers for Disease Control and Prevention. *Youth Risk Behavior Surveillance - United States, 2011.*; 2012:15.

²² Roberts SP, Siegel MB, DeJong W, Naimi TS, Jernigan DH. The Relationships Between Alcohol Source, Autonomy in Brand Selection, and Brand Preference Among Youth in the USA. *Alcohol Oxf.* 2014;49(5):563-571. doi:10.1093/alcalc/agu034.

²³ Henriksen L, Feighery EC, Schleicher NC, Cowling DW, Kline RS, Fortmann SP. Is adolescent smoking related to the density and proximity of tobacco outlets and retail cigarette advertising near schools? *Prev Med.* 2008;47(2):210-214. doi:10.1016/j.ypmed.2008.04.008.

²⁴ McCarthy WJ, Mistry R, Lu Y, Patel M, Zheng H, Dietsch B. Density of tobacco retailers near schools: effects on tobacco use among students. *Am J Public Health.* 2009;99(11):2006-2013. doi:10.2105/AJPH.2008.145128. Lee GJL, Kong AY, Sewell KB, Golden SD, Combs TB, Ribisil KM, Henriksen L. *Associations of Tobacco Retailer Density and Proximity with Adult Tobacco Use Behaviours and Health Outcomes: A Meta-Analysis.* Tobacco Control. 2021. doi: 10.1136/tobaccocontrol-2021-056717.

²⁵ Borodovsky JT, Lee DC, Crosier BS, Gabrielli JL, Sargent JD, Budney AJ. U.S. cannabis legalization and use of vaping and edible products among youth. *Drug Alcohol Depend.* 2017;0(0). doi:10.1016/j.drugalcdep.2017.02.017.

WHEREAS, home delivery of alcohol products has been associated with increased rates of purchase by minors;^{26 27} and

WHEREAS, unintentional exposure to marijuana by children under age 10 resulting in seeking care at poison centers in Colorado increased by 34% between 2009 and 2016, including increases from the two years before to the two years after legalization;²⁸and

WHEREAS, children and young people are particularly influenced by cues suggesting tobacco smoking is acceptable, which holds relevance for cannabis smoking;²⁹ and

WHEREAS, young people are much more likely to use candy – and fruit-flavored tobacco^{30 31} and alcohol products;³² and nationwide, minors are twice as likely to consume alcopops as adults;³³ the U.S. Food and Drug Administration and the U.S. Surgeon General have stated that flavored tobacco products are considered to be “starter” products that help establish smoking habits that can lead to long-term addiction;^{34 35} and similar findings are expected for cannabis; and

WHEREAS, the federal Family Smoking Prevention and Tobacco Control Act (FSPTCA), enacted in 2009, prohibited candy- and fruit-flavored cigarettes,³⁶ and in 2020 FDA guidance prioritized enforcement against flavored e-cigarettes largely because these flavored products were marketed to youth and young adults,³⁷ and younger smokers were more likely to have tried these products than older smokers;³⁸ and similar findings are expected for flavored cannabis; and

²⁶ Fletcher LA, Toomey TL, Wagenaar AC, Short B, Willenbring ML. Alcohol home delivery services: a source of alcohol for underage drinkers. *J Stud Alcohol*. 2000;61(1):81-84.

²⁷ Williams RS, Ribisl KM. Internet Alcohol Sales to Minors. *Arch Pediatr Adolesc Med*. 2012;166(9):808-813. doi:10.1001/archpediatrics.2012.265.

²⁸ Wang GS, Le Lait M, Deakynne SJ, Bronstein AC, Bajaj L, Roosevelt G. Unintentional Pediatric Exposures to Marijuana in Colorado, 2009-2015. *JAMA Pediatr*. 2016;170(9):e160971. doi:10.1001/jamapediatrics.2016.0971.

²⁹ DiFranza JR, Wellman RJ, Sargent JD, et al. Tobacco promotion and the initiation of tobacco use: assessing the evidence for causality. *Pediatrics*. 2006;117(6):e1237-1248. doi:10.1542/peds.2005-1817.

³⁰ King BA, Dube SR, Tynan MA. Flavored Cigar Smoking Among U.S. Adults: Findings From the 2009–2010 National Adult Tobacco Survey. *Nicotine Tob Res*. 2013;15(2):608-614. doi:10.1093/ntr/nts178.

³¹ Villanti AC, Richardson A, Vallone DM, Rath JM. Flavored tobacco product use among U.S. young adults. *Am J Prev Med*. 2013;44(4):388-391. doi:10.1016/j.amepre.2012.11.031.

³² Siegel M, Chen K, DeJong W, et al. Differences in alcohol brand consumption between underage youth and adults-United States, 2012. *Subst Abuse*. 2015;36(1):106-112. doi:10.1080/08897077.2014.883344.

³³ Siegel et al., *ibid*.

³⁴ Food and Drug Administration. *Fact Sheet: Flavored Tobacco Products.*; 2011.

³⁵ U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: 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; 2012:539.

³⁶ 111th Congress. *Family Smoking Prevention and Tobacco Control Act*. Vol Public Law 111-31 [H.R. 1256].; 2009.

³⁷ Food and Drug Administration. *Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market Without Premarket Authorization (Revised)*; 2020. Available at: <https://www.fda.gov/media/133880/download>

³⁸ U.S. Department of Health and Human Services. *Preventing Tobacco Use among Youth and Young Adults: 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; 2012:539.

WHEREAS, edible cannabis products have become increasingly common and are available in a variety of flavors and forms that appeal to children and young adults,^{39 40} including cotton candy, lollipops, gummy bears, brownies, chocolate chip cookies, “pot” tarts, Rice Krispies™ bars, and bubble gum, apple, cherry, chocolate, grape, peach, strawberry, and vanilla flavors; and

WHEREAS, allowing growth and diversification of the legal THC edibles market, especially of products attractive to youth, with minimal statewide oversight and regulation is likely to expose youth to these products and normalize their use without safeguards in place to protect public health and safety; and

WHEREAS the potency of cannabis and cannabis products has increased dramatically over the past decades from 4% tetrahydrocannabinol (THC) to 15-30+% THC in flower and up to 90% or more in extracted products,^{41 42} and growing evidence clearly supports greater risk from these products; and

WHEREAS daily use of cannabis products over 10% THC has been associated with fivefold higher odds of developing psychosis,⁴³ and such daily use has greatly increased in the past decade amongst youth;⁴⁴ and

WHEREAS, the U.S. Centers for Disease Control and Prevention has reported that electronic cigarette use among middle and high school students dramatically increased from 2017 to 2018, up 78% among high schoolers and 48% among middle schoolers;⁴⁵ and use of similar devices for consumption of cannabis by youth has been rapidly increasing in Minnesota with 18.2% of high school students reporting they have ever used an e-cigarette device to vape marijuana;⁴⁶ and

WHEREAS, while the sale of edible cannabinoid products has been legalized in Minnesota, it continues to be a Schedule I prohibited substance federally and therefore presents special challenges in multiple federally regulated spheres including banking, broadcasting and immigration; and

³⁹ Edibles Products & Reviews. Leafly. <https://www.leafly.com/products/edibles>. Accessed September 18, 2017.

⁴⁰ Modern consumable cannabis provides expanded flavor, quality. Spokesman.com. <http://www.spokesman.com/stories/2017/jul/28/modern-consumable-cannabis-provides-expanded-flavo/>. Accessed September 18, 2017.

⁴¹ Jackman T. Shatter. A super-high-potency marijuana, appearing on East Coast. *Washington Post*. https://www.washingtonpost.com/local/public-safety/shatter-super-high-potency-marijuana-now-appearing-on-east-coast/2015/12/23/e09dfde4-a8fa-11e5-bff5-905b92f5f94b_story.html. Published December 23, 2015. Accessed September 20, 2017.

⁴² Blaszcak-Boxe A. Potent Pot: Marijuana Is Stronger Now Than It Was 20 Years Ago. *Live Science*. <https://www.livescience.com/53644-marijuana-is-stronger-now-than-20-years-ago.html>. Published February 8, 2016. Accessed September 20, 2017.

⁴³ Di Forti et al., *ibid*.

⁴⁴ Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2021). Monitoring the Future national survey results on drug use 1975-2020: Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, University of Michigan.

⁴⁵ Centers for Disease Control, *Notes from the Field: Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students – United States, 2011-2018*. Available at: <https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm>. Last Accessed October 15, 2020.

⁴⁶ Minnesota Department of Health. *Teens and Tobacco in Minnesota: Highlights from the 2020 Youth Tobacco Survey, 2021*. Available at <https://www.health.state.mn.us/communities/tobacco/data/docs/2020mytsreport.pdf>.

WHEREAS, youth exposure to advertising of products such as alcohol, tobacco and food has been shown to create positive attitudes, brand identification, and an increased likelihood of initiation and use of these products;^{47 48 49} and

NOW THEREFORE, it is the intent of the [City Council/County Board], in enacting this ordinance, to ...

Consider adding these statements if a local regulatory framework, such as licensing and other specific policy provisions, is enacted:

WHEREAS, the [City Council/County Board] finds that a local regulatory system for cannabis retailers is appropriate to ensure that retailers comply with the cannabis laws and business standards of [City/County] to protect the health, safety, and welfare of our youth and most vulnerable residents; and

WHEREAS, [City/County] has the opportunity to be proactive and make decisions that improve compliance among cannabis retailers with laws prohibiting the sale or marketing of cannabis products to underage persons; and

WHEREAS, research has demonstrated that local tobacco retail ordinances dramatically reduce youth access to cigarettes, and therefore provide a useful model for preventing sales to youth of cannabis products. A review of U.S. jurisdictions with strong tobacco retailer licensing ordinances showed that youth cigarette and e-cigarette use was lower than in jurisdictions with weaker tobacco retailer licensing ordinances; and

WHEREAS, a requirement for a cannabis retailer permit will not unduly burden legitimate business activities of retailers who sell or distribute cannabis or cannabis products to adults, but will allow [City/County] to regulate the operation of lawful businesses to discourage violations of state and local cannabis-related laws; and

WHEREAS, [City/County] has a substantial interest in promoting compliance with state and local laws intended to regulate cannabis sales and use; in promoting compliance with laws prohibiting sales of cannabis and cannabis products to underage persons; and

⁴⁷ Smith LA, Foxcroft DR. The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. *BMC Public Health*. 2009;9(1):51. doi:10.1186/1471-2458-9-51.

⁴⁸Wellman RJ, Sugarman DB, DiFranza JR, Winickoff JP. The Extent to Which Tobacco Marketing and Tobacco Use in Films Contribute to Children's Use of Tobacco: A Meta-analysis. *Arch Pediatr Adolesc Med*. 2006;160(12):1285-1296. doi:10.1001/archpedi.160.12.1285.

⁴⁹ Cairns G, Angus K, Hastings G, Caraher M. Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*. 2013;62(Supplement C):209-215. doi:10.1016/j.appet.2012.04.017.

WHEREAS, low prices are known to facilitate use of tobacco by minors⁵⁰ and while prices of cannabis should not be so high as to promote illicit sales, they should also not be artificially lowered through discounting or depressed by overproduction; and

WHEREAS, research demonstrates that youth are particularly price sensitive and responsive to changes in price,⁵¹ and in the case of tobacco, when cigarettes cost more, fewer adolescents start smoking,⁵² and similar findings are expected for cannabis; and

NOW THEREFORE, it is the intent of the [City Council/County Board], in enacting this ordinance, to ensure responsible cannabis retailing, allowing legal sale and access, without promoting increases in use, and to discourage violations of cannabis-related laws, especially those which prohibit or discourage the marketing, sale or distribution of cannabis and cannabis products to youth under 21 years of age.

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The Public Health Law Center provides information and legal technical assistance on issues related to public health. The Center does not lobby nor does it provide direct legal representation or advice. This document should not be considered legal advice.

⁵⁰ US Department of Health and Human Services (2012), *ibid*.

⁵¹ Chaloupka F. *Tobacco Control Lessons Learned: The Impact of State and Local Policies*. Chicago, IL: University of Illinois at Chicago; 2010. <https://tobacconomics.org/research/tobacco-control-lessons-learned-the-impact-of-state-and-local-policies/>. Accessed September 19, 2017.

⁵² US Department of Health and Human Services (2012), *ibid*.